6211-I1 ADSL2+ Router

User's Guide

Document Number 6211-A2-GB21-20

January 2005

PARADYNE

Copyright © 2005 Paradyne Corporation.
All rights reserved.
Printed in U.S.A.

Notice

This publication is protected by federal copyright law. No part of this publication may be copied or distributed, transmitted, transcribed, stored in a retrieval system, or translated into any human or computer language in any form or by any means, electronic, mechanical, magnetic, manual or otherwise, or disclosed to third parties without the express written permission of Paradyne Corporation, 8545 126th Ave. N., Largo, FL 33773.

Paradyne Corporation makes no representation or warranties with respect to the contents hereof and specifically disclaims any implied warranties of merchantability or fitness for a particular purpose. Further, Paradyne Corporation reserves the right to revise this publication and to make changes from time to time in the contents hereof without obligation of Paradyne Corporation to notify any person of such revision or changes.

Changes and enhancements to the product and to the information herein will be documented and issued as a new release to this manual.

Warranty, Sales, Service, and Training Information

Contact your local sales representative, service representative, or distributor directly for any help needed. For additional information concerning warranty, sales, service, repair, installation, documentation, training, distributor locations, or Paradyne worldwide office locations, use one of the following methods:

Internet: Visit the Paradyne World Wide Web site at **www.paradyne.com**. (Be sure to register your warranty at **www.paradyne.com/warranty**.)

Telephone: Call our automated system to receive current information by fax or to speak with a company representative.

Within the U.S.A., call 1-800-870-2221

Outside the U.S.A., call 1-727-530-2340

Document Feedback

We welcome your comments and suggestions about this document. Please mail them to Technical Publications, Paradyne Corporation, 8545 126th Ave. N., Largo, FL 33773, or send e-mail to **userdoc@paradyne.com**. Include the number and title of this document in your correspondence. Please include your name and phone number if you are willing to provide additional clarification.

Trademarks

Acculink, Comsphere, ETC, Etherloop, FrameSaver, GranDSLAM, Hotwire, the Hotwire logo, Jetstream, MVL, NextEDGE, OpenLane, Paradyne, the Paradyne logo, Paradyne Credit Corp., the Paradyne Credit Corp. logo, Performance Wizard, StormPort, TruPut are all registered trademarks of Paradyne Corporation. ADSL/R, BitStorm, Connect to Success, GrandVIEW, Hotwire Connected, iMarc, JetFusion, JetVision, MicroBurst, PacketSurfer, ReachDSL, Spectrum Manager, StormTracker and TriplePlay are trademarks of Paradyne Corporation. All other products and services mentioned herein are the trademarks, service marks, registered trademarks, or registered service marks of their respective owners.

Important Safety Instructions

1. Read and follow all warning notices and instructions marked on the product or included in the manual.

2. Slots and openings in the cabinet are provided for ventilation. To ensure reliable operation of the product and to protect it from overheating, these slots and openings must not be blocked or covered.

3. Do not allow anything to rest on the power cord and do not locate the product where persons will walk on the power cord.

4. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous high voltage points or other risks. Refer all servicing to qualified service personnel.

5. General purpose cables are used with this product for connection to the network. Special cables, which may be required by the regulatory inspection authority for the installation site, are the responsibility of the customer. Use a UL Listed, CSA certified, minimum No. 24 AWG line cord for connection to the Digital Subscriber Line (DSL) network.

6. When installed in the final configuration, the product must comply with the applicable Safety Standards and regulatory requirements of the country in which it is installed. If necessary, consult with the appropriate regulatory agencies and inspection authorities to ensure compliance.

7. A rare phenomenon can create a voltage potential between the earth grounds of two or more buildings. If products installed in separate buildings are **interconnecte**d, the voltage potential may cause a hazardous condition. Consult a qualified electrical consultant to determine whether or not this phenomenon exists and, if necessary, implement corrective action prior to interconnecting the products.

8. Input power to this product must be provided by one of the following: (1) a UL Listed/CSA certified power source with a Class 2 or Limited Power Source (LPS) output for use in North America, or (2) a certified transformer, with a Safety Extra Low Voltage (SELV) output having a maximum of 240 VA available, for use in the country of installation.

9. In addition, since the equipment is to be used with telecommunications circuits, take the following precautions:

- Never install telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use the telephone to report a gas leak in the vicinity of the leak.

CE Marking

When the product is marked with the CE mark on the equipment label, a supporting Declaration of Conformity may be downloaded from the Paradyne World Wide Web site at **www.paradyne.co**m. Select *Support -> Technical Manuals -> Declarations of Conformity.*

FCC Part 15 Declaration

An FCC Declaration of Conformity may be downloaded from the Paradyne World Wide Web site at **www.paradyne.co**m. Select *Support -> Technical Manuals -> Declarations of Conformity.*

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The authority to operate this equipment is conditioned by the requirement that no modifications will be made to the equipment unless the changes or modifications are expressly approved by the responsible party.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Notice to Users of the United States Telephone Network

The following notice applies to versions of the modem that have been FCC Part 68 approved.

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the Administrative Council for Terminal Attachment (ACTA). On the bottom side of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the Telephone Company.

This equipment is intended to connect to the Public Switched Telephone Network through a Universal Service Order Code (USOC) type RJ11C jack. A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It has been designed to be connected to a compatible modular jack that is also compliant.

The Ringer Equivalence Number (or REN) is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local Telephone Company. The REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point. For example, 03 represents a REN of 0.3.

If the modem causes harm to the telephone network, the Telephone Company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the Telephone Company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The Telephone Company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens, the Telephone Company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service. If trouble is experienced with the modem, refer to the repair and warranty information in this document.

If the equipment is causing harm to the telephone network, the Telephone Company may request that you disconnect the equipment until the problem is resolved.

The user may make no repairs to the equipment.

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

If the site has specially wired alarm equipment connected to the telephone line, ensure the installation of the modem does not disable the alarm equipment. If you have questions about what will disable alarm equipment, consult your Telephone Company or a qualified installer.

Notice to Users of the Canadian Telephone Network

NOTICE: This equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation IC before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment.

NOTICE: The Ringer Equivalence Number (REN) for this terminal equipment is labeled on the equipment. The REN assigned to each terminal equipment provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed five.

If your equipment is in need of repair, contact your local sales representative, service representative, or distributor directly.

CANADA – EMI NOTICE:

This Class B digital apparatus meets all requirements of the Canadian interference-causing equipment regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du règlement sur le matérial brouilleur du Canada.

Japan Notices

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＢ情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。

This is a Class B product based on the standard of the Voluntary Control Council for Interference from Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

Table of Contents

1 INTRODUCTION 9

FEATURES 9
SYSTEM REQUIREMENTS 9
USING THIS DOCUMENT 9

2 GETTING TO KNOW THE 6211 ADSL ROUTER 11

PARTS LIST 11
FRONT PANEL 12
REAR PANEL 13

3 GETTING STARTED 14

CONNECTING THE HARDWARE 14
INSTALLING USB DRIVERS 16
CONFIGURING YOUR COMPUTERS 18
LOGGING IN TO YOUR ROUTER 22

4 DEVICE INFORMATION 24

SUMMARY 24
WAN 25
STATISTICS 26
ADSL STATISTICS 29
ROUTE 30
ARP 31

5 QUICK SETUP 32

AUTO PVC 32
SETTING A PVC WITHOUT AUTO DETECTING 34

6 ADVANCED SETUP 35

WAN 35
LAN 41
NAT 41
FIREWALL 47
QUALITY OF SERVICE 54
ROUTING 57
DNS 61
ADSL 62

7 DIAGNOSTICS 65

8 MANAGEMENT 66

SETTINGS 66
SYSTEM LOG 72
ACCESS CONTROL 76
UPDATE SOFTWARE 80
REBOOT ROUTER 81

1 Introduction

Congratulations on becoming the owner of a 6211 ADSL router.

This User Manual will show you how to set up the router, and how to customize its configuration to get the most out of this product.

Features

- Built-in ADSL modem which offers G.Dmt, G.lite, T1.413, ADSL2, Annex L, and ADSL2+ to meet different linking speeds from your ISP.
- 10/100BaseT Ethernet port to provide Internet connectivity to all computers on your LAN via additional Ethernet Switch/HUB.
- USB port allows quick installation.
- Built-in splitter provides you to connect telephone directly without using extra splitter (Model 6211-I1-x0x).
- Configuration program accessible via a web browser, such as Microsoft Internet Explorer. Note that Netscape is not supported.

System Requirements

In order to use the 6211 ADSL router for Internet access, you must have the following:

- ADSL service subscription from your ISP.
- A PC with:
  - An Ethernet 10/100BaseT network interface card or USB port
  - A processor equivalent to or faster than a Pentium II 133 MHz
  - 32 MB RAM or greater
  - If USB drivers will be installed, 5 MB free disk space
  - Windows 95b, 98, 98SE, 2000, ME, NT, or XP

    (Note: Windows 95 requires the installation of the Winsock program, not included. Windows 95 and 98 do not support USB.)
- (Optional) An Ethernet hub or switch, if you wish to connect the router to several computers on an Ethernet network.
- For system configuration using the supplied web-based program: a web browser such as Internet Explorer Version 6.0 or later.

Using this Document

Notational conventions

- The terms *LAN* and *network* are used interchangeably to refer to a group of Ethernet-connected computers at one site.

Typographical conventions

- **Boldface** type text is used for items you select from menus and drop-down lists, and text strings you type when prompted by the program.

Special messages

This document uses the following icons to call your attention to specific instructions or explanations.

Note

Provides clarification or non-essential information on the current topic.

WARNING

Provides messages of high importance, including messages relating to personal safety or system integrity.

2 Getting to Know the 6211 ADSL Router

Parts List

In addition to this document, your 6211 ADSL router should come with the following:

- 6211 ADSL router
- Power adapter
- Ethernet cable (RJ45, "straight-through" type), Phone cable (RJ11), and USB cable.

Figure 2-1 6211 ADSL router Package Contents

Front Panel

The front panel contains LED indicators that show the status of the unit.

Figure 2-2 Front Panel LEDs

Table 2-1 Front Panel Label and LEDs

Label	Color	Function
POWER	green	On: Unit is powered on Off: Unit is powered off
STATUS	green	On: ADSL link is established and active Flashing: Trying to create an ADSL connection Off: No ADSL link
ACTIVITY	green	Flashing: ADSL data transfer
LAN	green	On: LAN link is established Flashing: Data transfer at LAN connection Off: No LAN link
USB	green	On: USB link is established Off: No USB link

Rear Panel

The rear panel contains the ports for the router's data and power connections.

Figure 2-3 Rear Panel Connections

Table 2-2 Rear Panel Labels and Connectors

Label	Function
POWER	Connects to the supplied power adapter
RESET/DEFAULT	To reset the router to its default settings
LAN	Connects the CPE to your PC's Ethernet port, or to the uplink port on your LAN's hub or switch, using the cable provided
USB	USB outlet, for PC USB port connection
PHONE (Model 6211-I1-x0x)	Connects to your telephone
LINE	Connects to your ADSL line

3 Getting Started

This chapter provides basic instructions for connecting the 6211 ADSL router to a PC or LAN, and to the Internet via ADSL.

- Part 1 provides instructions to set up the hardware.
- Part 2 describes how to configure Internet properties on your PC.
- Part 3 shows you how to access your 6211 ADSL router.

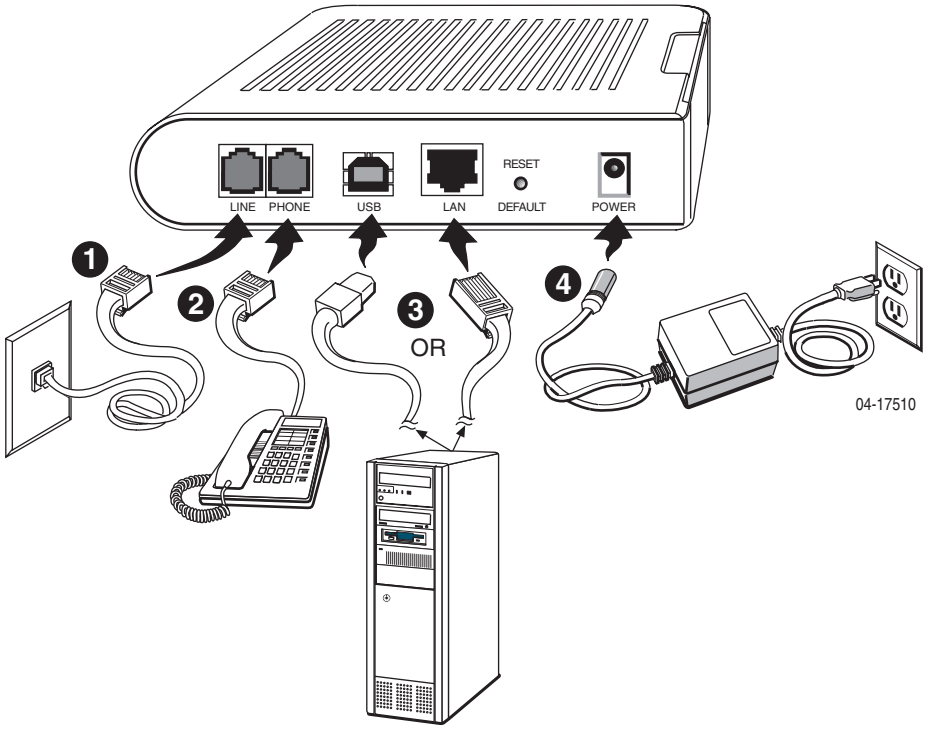
It is assumed that you have subscribed to ADSL service with your Internet service provider (ISP). These instructions provide a basic configuration that should be compatible with your home or small office network setup. Refer to the subsequent chapters for additional configuration instructions.

Connecting the Hardware

This section describes how to attach the router to an ADSL line, the power outlet, and your computer or network.

WARNING

Before you begin, turn the power off for all devices. *These include your computer(s), your LAN hub or switch (if applicable), and the 6211 ADSL router.*



The figure above illustrates the hardware connections. Read the following for specific instructions.

Connect the ADSL Line and Telephone

Connect your ADSL line to the LINE port on the rear panel of the router, and connect the other end of the line to the wall phone jack.

Optionally connect your telephone to the port labeled PHONE on the rear panel of the router (Model 6211-I1-x0x only).

Connect the computers, USB port, or a LAN

There are several ways to connect your PC to the router:

- You can use the supplied Ethernet cable to connect your computer directly to the router. Connect one end of the Ethernet cable to the port labeled LAN on the rear panel of the router and connect the other end to the Ethernet port of your computer.
- Alternatively, use the supplied USB cable to connect your computer directly to the router. Connect one end (Type B) of the USB cable to the USB port on the rear panel of the router and connect the other end (Type A) to a free USB port on your PC. The Found New Hardware Wizard will open on your PC. See Installing USB Drivers, below.
- If your LAN has more than one computer, you can attach one end of an Ethernet cable to a hub or a switch (normally in an uplink port; refer to your hub or switch documentation for instructions) and the other to the Ethernet port (labeled LAN) on the router.

Note that either a crossover or straight-through Ethernet cable can be used. The router automatically senses the type of connection that is required.

Connect the power adapter

Connect the AC power adapter to the POWER connector on the back of the device and plug the adapter into a wall outlet or power strip.

Turn on your computer

Turn on and boot up your PC and any LAN devices, such as hub or switches, and any computers connected to them.

Verify that the router's LEDs are illuminated as shown in Table 3-1.

Table 3-1 LED Indicators

This LED:	...should be:
POWER	Solid green to indicate that the device is turned on. If this light is not on, check if the power adapter is attached to the router and plugged into an AC power source.
STATUS	Solid green to indicate that the router can communicate with your ISP via ADSL, or flashing when the router is trying to connect to your ISP.
ACTIVITY	Flashing when the device is sending or receiving data over the ADSL connection.
LAN	Solid green to indicate that the device can communicate with your PC via Ethernet, or flashing when the router is sending or receiving data over Ethernet.
USB	Solid green when connected, flashing when the router is sending or receiving data.

If the LEDs are illuminated as expected, the router is working properly.

Installing USB Drivers

As soon as you connect the USB cable between your PC and device, Windows will detect new hardware and the Found New Hardware Wizard will appear on your PC monitor. Follow this procedure:

1. Choose "**Install from a list or specific location**" from the Wizard's menu, then click on **Next**.

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install software for:
USB Device
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

Figure 3-1 Found New Hardware Wizard

2. Insert the supplied CD ROM and use "**Browse**" to include the CD drive in the search.

Found New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
D:\
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

Figure 3-2 Search and Installation Options

3. The Wizard will ask you to confirm the hardware installation. Choose "**Continue Anyway**" then it will start to install the supplied USB driver to your PC automatically.

Hardware Installation
The software you are installing for this hardware:
Broadcom USB Remote NDIS Device
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

Figure 3-3 Compatibility Warning

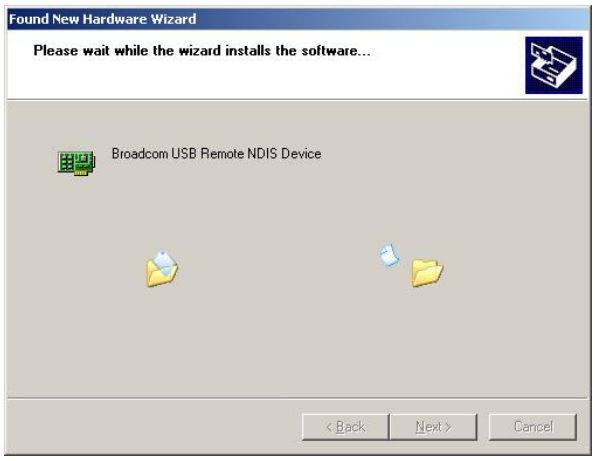


Figure 3-4 Progress Screen

4. When prompted, click on **Finish** to close the Wizard.

Found New Hardware Wizard
Completing the Found New Hardware Wizard
The wizard has finished installing the software for:
Broadcom USB Remote NDIS Device
Click Finish to close the wizard.
< Back
Finish
Cancel

Figure 3-5 Completion Screen

Configuring Your Computers

Before you can access the router over the LAN or the USB port, you have to configure your PC's TCP/IP address to be **192.168.1.x** (where x is any number between 3 and 254), with a subnet mask of **255.255.255.0**. Your router's default IP address is **192.168.1.1**.

Windows XP PCs:

1. In the Windows task bar, click on the **Start** button, and then click on **Control Panel**.
2. Double-click on the **Network Connections** icon.
3. In the LAN or High-Speed Internet window, right-click on the icon corresponding to your network interface card (NIC) or USB connection, and select **Properties**. (Often this icon is labeled *Local Area Connection*). The **Local Area Connection** dialog box displays with a list of currently installed network items.
4. Ensure that the check box to the left of the item labeled **Internet Protocol (TCP/IP)** is checked, and click on Properties.

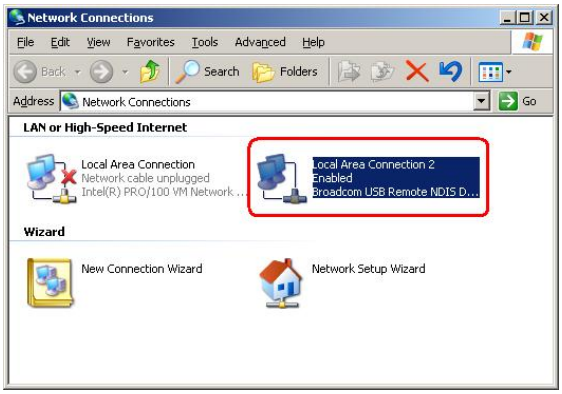


Figure 3-6 Network Connection - Windows XP

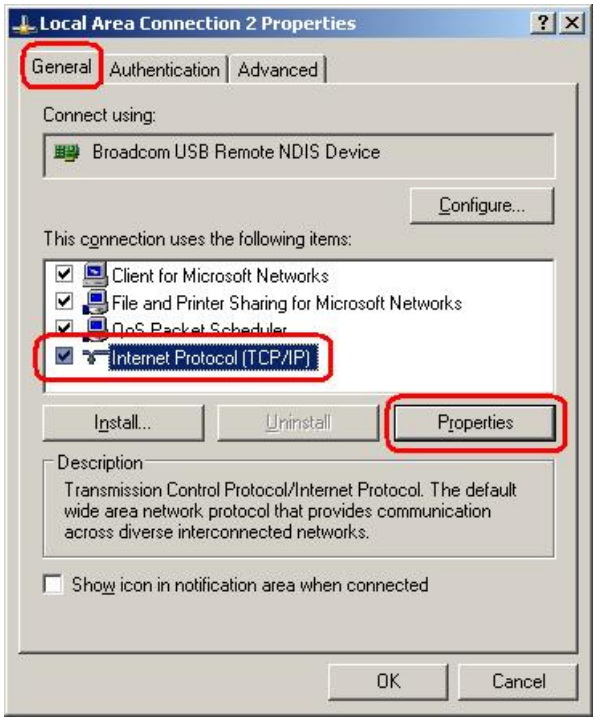


Figure 3-7 Local Area Connection Property – Windows XP

5. In the **Internet Protocol (TCP/IP) Properties** dialog box, click on the radio button labeled **Use the following IP address.** Type an address between **192.168.1.3** and **192.168.1.254** in the IP Address field (192.168.1.20 is shown here as an example) and **255.255.255.0** in the Subnet Mask field.

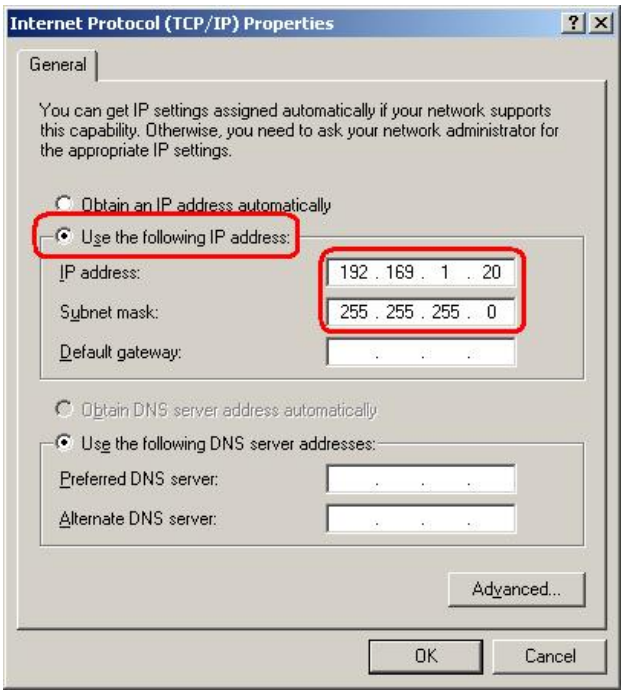

Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
192 . 169 . 1 . 20
Subnet mask:
255 . 255 . 255 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Figure 3-8 TCP/IP Property in Windows XP

6. Click on OK twice to confirm your changes, and close the **Control Panel**.

Windows 2000 PCs:

7. In the Windows task bar, click on the **Start** button, point to **Settings**, and then click on **Control Panel**.
8. Double-click on the **Network and Dial-up Connections** icon.
9. In the **Network and Dial-up Connections** window, right-click on the **Local Area Connection** icon, and then select **Properties**.

   The **Local Area Connection Properties** dialog box display a list of currently installed network components. If the list includes **Internet Protocol (TCP/IP)**, the protocol has already been enabled; skip to step 16 .

10. If **Internet Protocol (TCP/IP)** does not appear as an installed component, click on Install...
11. In the **Select Network Component Type** dialog box, select **Protocol**, and then click on Add...
12. Select **Internet Protocol (TCP/IP)** in the **Network Protocols** list, and then click on OK.

    You may be prompted to install files from your Windows 2000 installation CD or other medium. Follow the instructions to install the files.

13. If prompted, click on OK to restart your computer with the new settings.
14. After restarting your PC, double-click on the **Network and Dial-up Connections** icon in the **Control Panel**.
15. In **Network and Dial-up Connections** window, right-click on the **Local Area Connection** icon, and then select **Properties**.

16. In the **Local Area Connection Properties** dialog box, select **Internet Protocol (TCP/IP)**, and then click on Properties.
17. In the **Internet Protocol (TCP/IP) Properties** dialog box, click on the radio button labeled **Use the following IP address.** Type an address between **192.168.1.3** and **192.168.1.254** in the IP Address field and **255.255.255.0** in the Subnet Mask field.
18. Click on OK twice to confirm and save your changes, and then close the **Control Panel**.

Windows ME PCs

1. In the Windows task bar, click on the **Start** button, point to **Settings**, and then click on **Control Panel**.
2. Double-click on the **Network and Dial-up Connections** icon.
3. In the **Network and Dial-up Connections** window, right-click on the **Network** icon, and then select **Properties**.

   The **Network Properties** dialog box displays a list of currently installed network components. If the list includes **Internet Protocol (TCP/IP)**, the protocol has already been enabled; skip to step 11.
4. If **Internet Protocol (TCP/IP)** does not appear as an installed component, click on Add...
5. In the **Select Network Component Type** dialog box, select **Protocol**, and then click on Add...
6. Select **Microsoft** in the Manufacturers box.
7. Select **Internet Protocol (TCP/IP)** in the Network Protocols list, and then click on OK.

   You may be prompted to install files from your Windows Me installation CD or other media. Follow the instructions to install the files.
8. If prompted, click on OK to restart your computer with the new settings.
9. After restarting your PC, double-click on the **Network and Dial-up Connections** icon in the **Control Panel**.
10. In **Network and Dial-up Connections** window, right-click on the **Network** icon, and then select **Properties**.
11. In the **Network Properties** dialog box, select **TCP/IP**, and then click on Properties.
12. In the **TCP/IP Settings** dialog box, click on the radio button labeled **Use the following IP address.** Type an address between **192.168.1.3** and **192.168.1.254** in the IP Address field and **255.255.255.0** in the Subnet Mask field
13. Click OK twice to confirm and save your changes, and then close the **Control Panel**.

Windows 95, 98 PCs:

1. In the Windows task bar, click on the **Start** button, point to **Settings**, and then click on **Control Panel**.
2. Double-click on the **Network** icon.

   The **Network** dialog box displays a list of currently installed network components. If the list includes **TCP/IP**, the protocol has already been enabled. Skip to step 9.
3. If **TCP/IP** does not appear as an installed component, click on Add... The **Select Network Component Type** dialog box appears.
4. Select **Protocol**, and then click on Add...

   The **Select Network Protocol** dialog box appears.

5. Click on **Microsoft** in the Manufacturers list box, and then click on **TCP/IP** in the Network Protocols list box.
6. Click on OK to return to the **Network** dialog box, and then click on OK again.

   You may be prompted to install files from your Windows 95/98 installation CD. Follow the instructions to install the files.
7. Click on OK to restart the PC and complete the TCP/IP installation.
8. After restarting your PC, open the **Control Panel** window, and then click on the **Network** icon.
9. Select the network component labeled **TCP/IP**, and then click on Properties.

   If you have multiple TCP/IP listings, select the listing associated with your network card or adapter.
10. In the **TCP/IP Properties** dialog box, click on the **IP Address** tab.
11. Click in the radio button labeled **Use the following IP address.** Type an address between **192.168.1.3** and **192.168.1.254** in the IP Address field and **255.255.255.0** in the Subnet Mask field
12. Click on OK twice to confirm and save your changes. You will be prompted to restart Windows. Please click on Yes and restart your PC.

Windows NT 4.0 workstations:

1. In the Windows NT task bar, click on the **Start** button, point to **Settings**, and then click on **Control Panel**.
2. In the **Control Panel** window, double click on the **Network** icon.
3. In the **Network** dialog box, click on the **Protocols** tab.

   The Protocols tab displays a list of currently installed network protocols. If the list includes **TCP/IP**, the protocol has already been enabled. Skip to step 9.
4. If **TCP/IP** does not appear as an installed component, click on Add...
5. In the **Select Network Protocol** dialog box, select **TCP/IP**, and then click on OK.

   You may be prompted to install files from your Windows NT installation CD or other medium. Follow the instructions to install the files.

   After all files are installed, a window appears to inform you that a TCP/IP service called DHCP can be set up to dynamically assign IP information.
6. Click on Yes to continue, and then click on OK, if prompted, to restart your computer.
7. After restarting your PC, open the **Control Panel** window, and then double-click on the **Network** icon.
8. In the **Network** dialog box, click on the **Protocols** tab.
9. In the **Protocols** tab, select **TCP/IP**, and then click on Properties.
10. In the **Microsoft TCP/IP Properties** dialog box, click on the radio button labeled **Use the following IP address.** Type an address between **192.168.1.3** and **192.168.1.254** in the IP Address field and **255.255.255.0** in the Subnet Mask field.
11. Click on OK twice to confirm and save your changes, and then close the **Control Panel**.

Logging in to your router

This section shows how to connect to the router's web interface, configure settings, and observe some statistics of your Internet connection.

1. Open your Web browser, and type the following URL in the address/location box, and press **<Enter>**:

   http://192.168.1.1

   This is the predefined IP address for the LAN port on the router.

   A login screen appears.

Figure 3-9 Login Screen

   If you have problem connecting to the router, verify that your PC is properly configured within the subnet of the router's predefined IP address **192.168.1.1**. Setup is described in sections 3.2.2 to 3.2.6.

2. Enter your user name and password, and then click on OK to display the home page of the router's web interface. There are two default user name and password combinations:

User Name	**Password**	**Capability**
user	user	Can display device status, but cannot change or save configuration options.
admin	admin	Can perform all functions.

Note

You can change the passwords at any time.

The home page is shown in Figure 3-10.

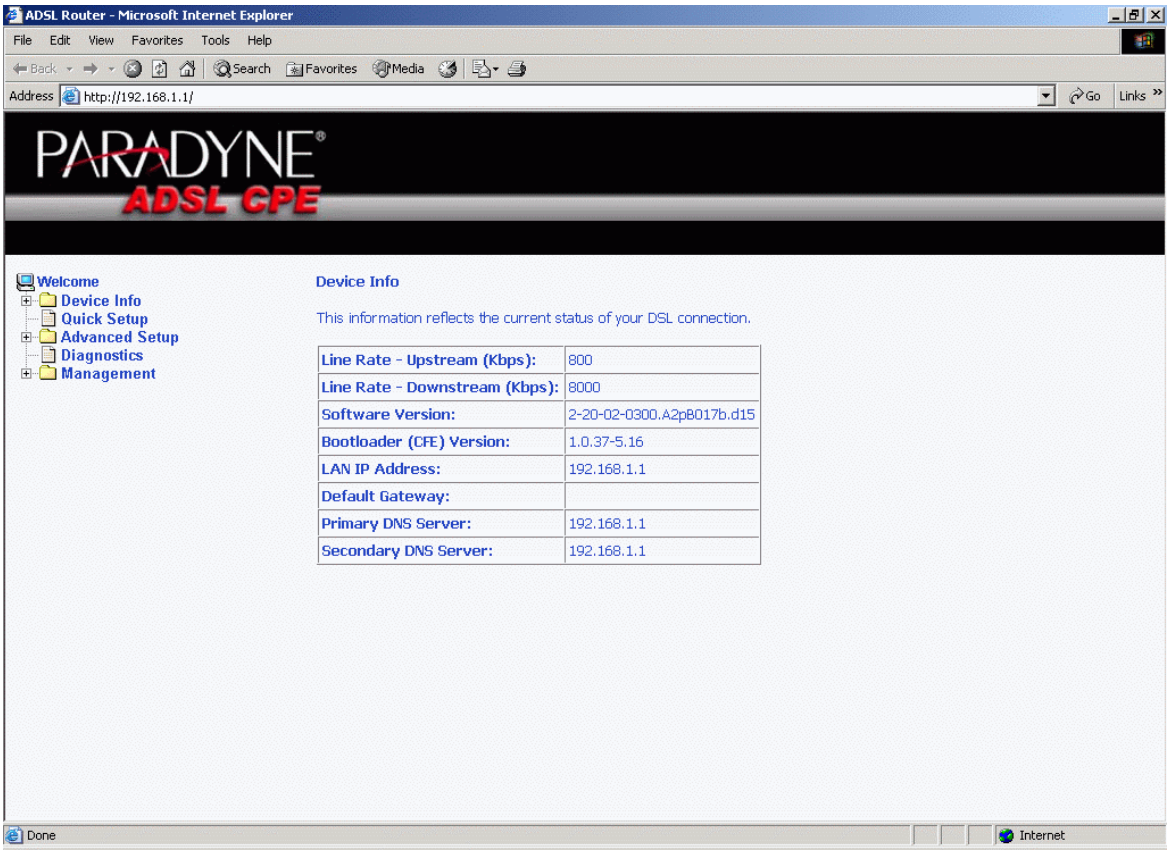


Figure 3-10 6211 ADSL Router Home Page

4 Device Information

This chapter describes the system information available using the menu items under Device Info.

Summary

You can get the general status report from the router by clicking on the "**Summary**" item under "**Device Info**" (shown in Figure 4.1)

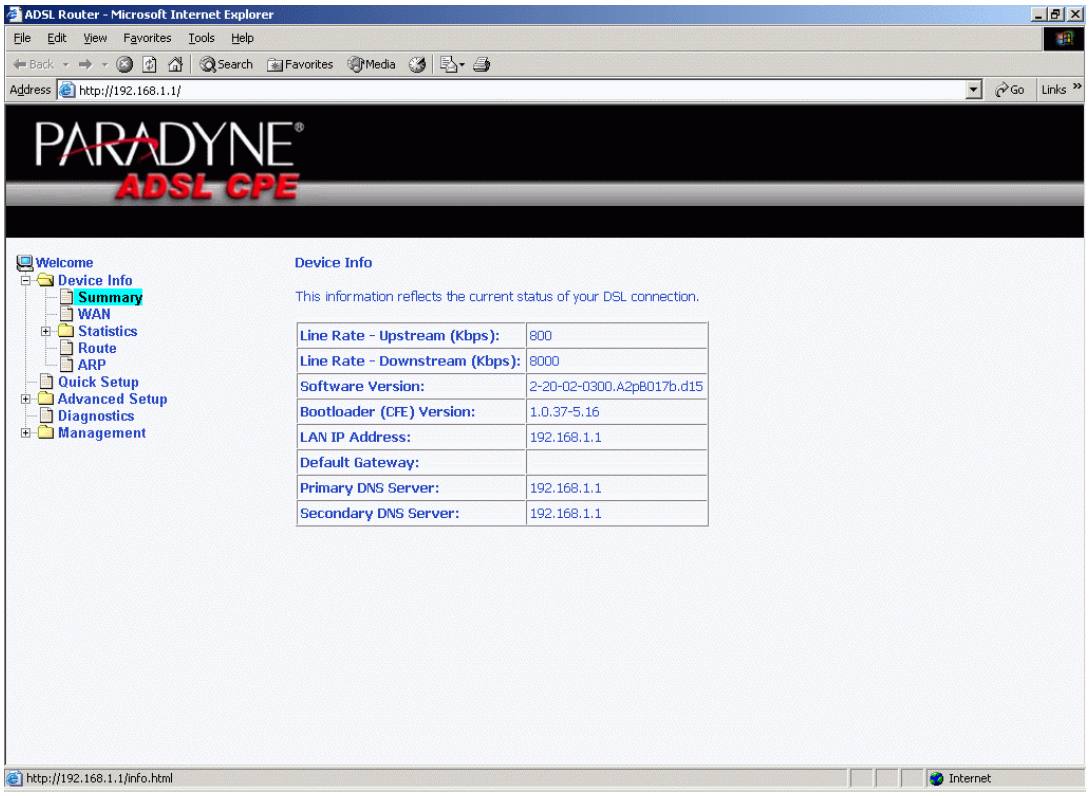


Figure 4.1 Status Summary

WAN

You can get the WAN status report from the router by clicking on the "**WAN**" item under "**Device Info**" (shown in Figure 4.2)

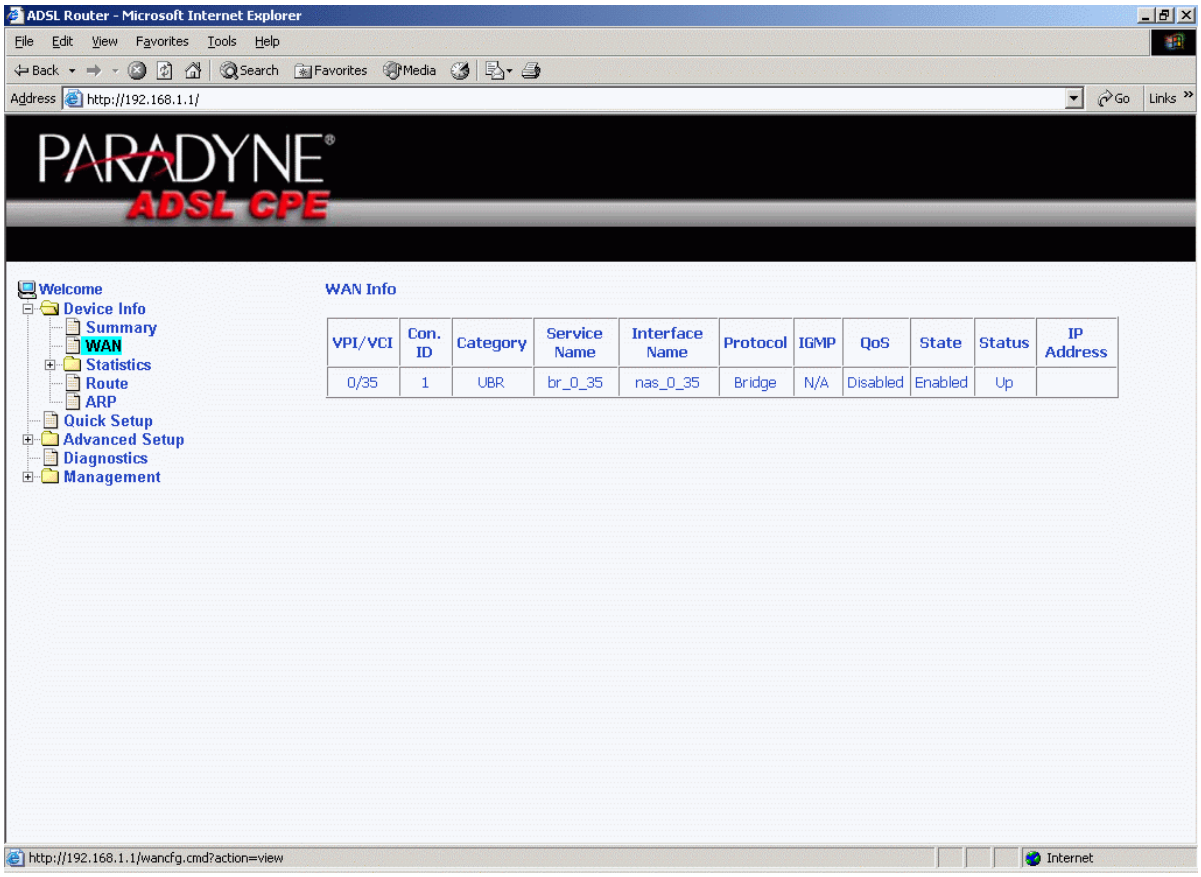


Figure 4.2 WAN Status

Statistics

LAN Statistics

You can get LAN statistics from the router by clicking on the "**LAN**" item under "**Statistics**" (shown in Figure 4.3)

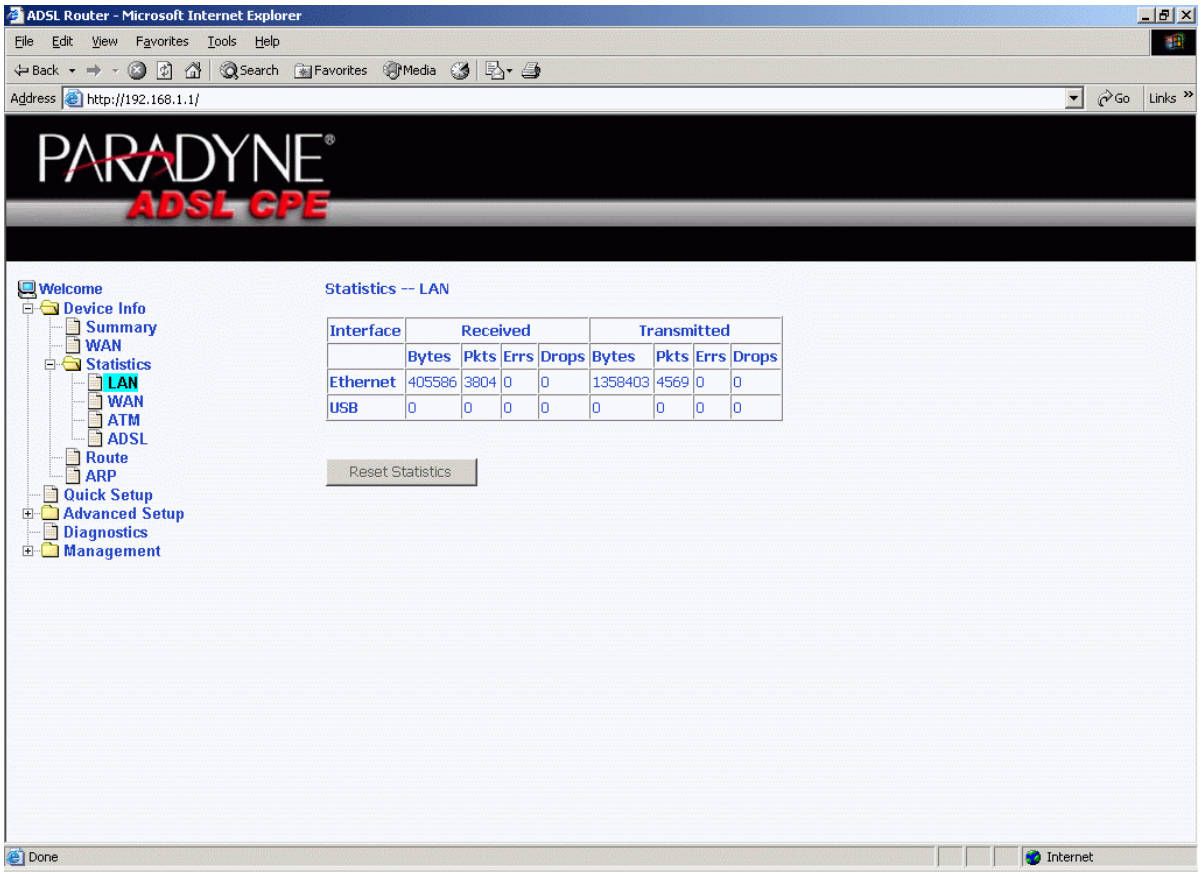


Figure 4.3 LAN Statistics Page

WAN Statistics

You can get WAN statistics from the router by clicking on the "**WAN**" item under "**Statistics**" (shown in Figure 4.4).

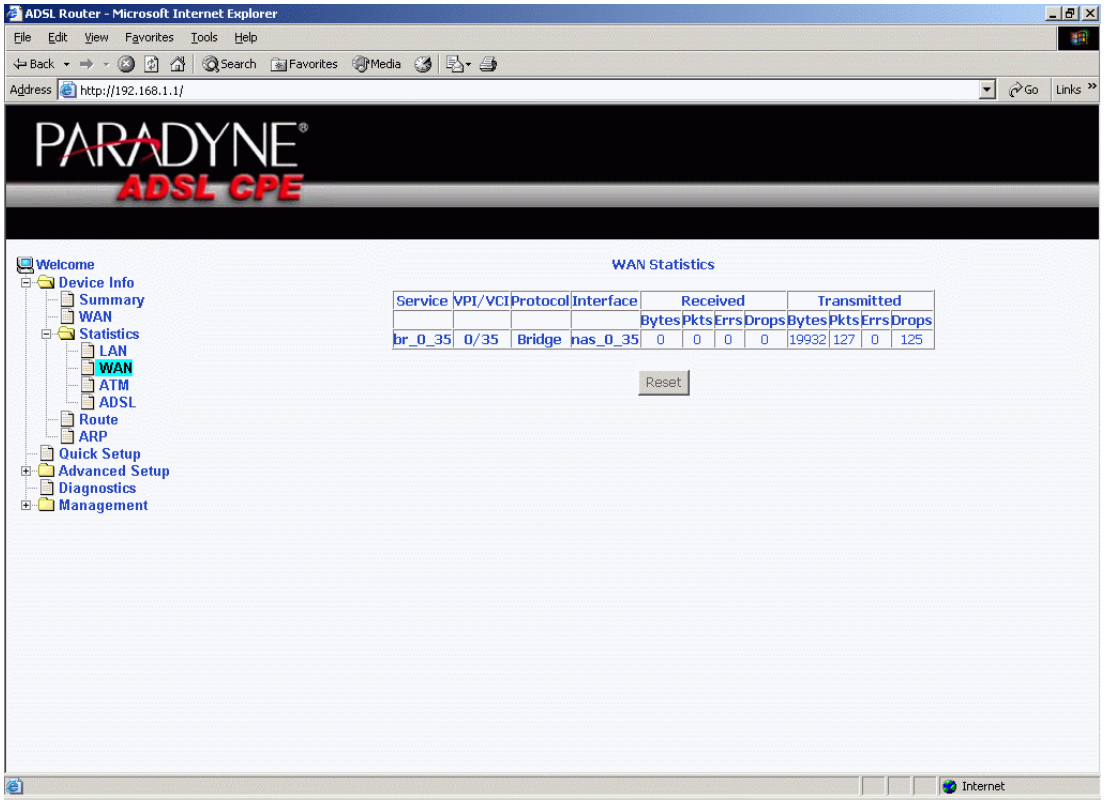


Figure 4.4 WAN Statistics Page

ATM Statistics

You can get ATM statistics from the router by clicking on the "**ATM**" item under "**Statistics**" (shown in Figure 4.5).

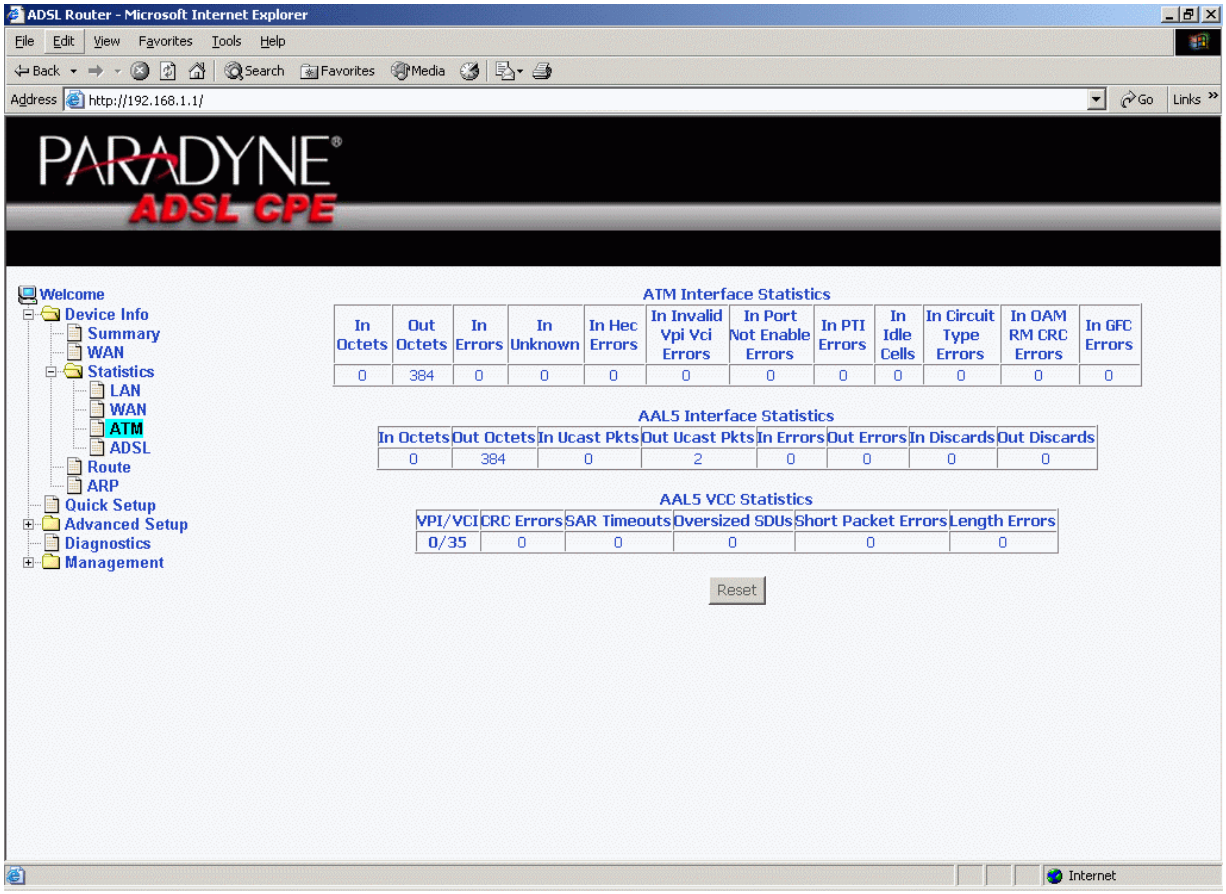

ADSL Router - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://192.168.1.1/
Go Links
PARADYNE
ADSL CPE
Welcome
Device Info
Summary
WAN
Statistics
LAN
WAN
ATM
ADSL
Route
ARP
Quick Setup
Advanced Setup
Diagnostics
Management
ATM Interface Statistics
In Octets | Out Octets | In Errors | In Unknown | In Hec Errors | In Invalid Vpi Vci Errors | In Port Not Enable Errors | In PTI Errors | In Idle Cells | In Circuit Type Errors | In OAM RM CRC Errors | In GFC Errors
0 | 384 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
AAL5 Interface Statistics
In Octets | Out Octets | In Ucast Pkts | Out Ucast Pkts | In Errors | Out Errors | In Discards | Out Discards
0 | 384 | 0 | 2 | 0 | 0 | 0 | 0
AAL5 VCC Statistics
VPI/VCI | CRC Errors | SAR Timeouts | Oversized SDUs | Short Packet Errors | Length Errors
0/35 | 0 | 0 | 0 | 0 | 0
Reset
Internet

Figure 4.5 ATM Statistics Page

ADSL Statistics

You can get ADSL statistics from the router by clicking on the "**ADSL**" item under "**Statistics**" (shown in Figure 4.6).

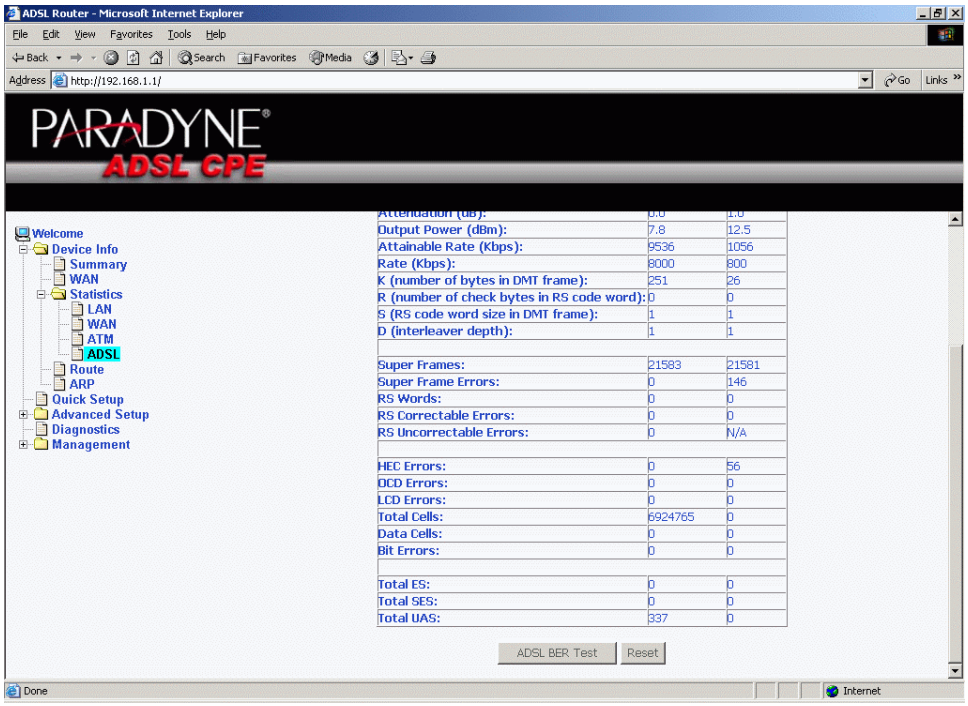


Figure 4.6 ADSL Status

ADSL BER Test

The ADSL Bit Error Rate (BER) test determines the quality of the ADSL connection. The test is performed by transferring idle cells containing a known pattern and comparing the received data with this known pattern to check for any errors (shown in Figures 4.7 and 4.8).

1. Click on the ADSL BER Test button.
2. Select the test duration and click on "Start".
3. Check the result.

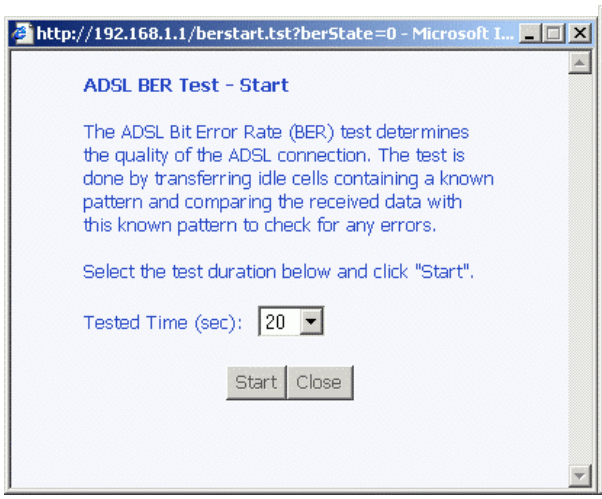

http://192.168.1.1/berstart.tst?berState=0 - Microsoft I...
ADSL BER Test - Start
The ADSL Bit Error Rate (BER) test determines the quality of the ADSL connection. The test is done by transferring idle cells containing a known pattern and comparing the received data with this known pattern to check for any errors.
Select the test duration below and click "Start".
Tested Time (sec): 20
Start
Close

Figure 4.7 ADSL BER Test - Start

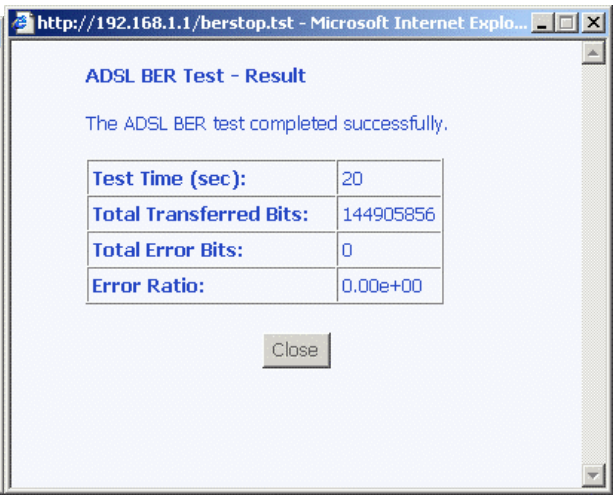

http://192.168.1.1/berstop.tst - Microsoft Internet Explo...
ADSL BER Test - Result
The ADSL BER test completed successfully.
Test Time (sec): 20
Total Transferred Bits: 144905856
Total Error Bits: 0
Error Ratio: 0.00e+00
Close

Figure 4.8 ADSL BER Test - Result

Route

You can get the Routing status report from router by clicking on the "**Route**" item under "**Device Info**" (shown in Figure 4.9)

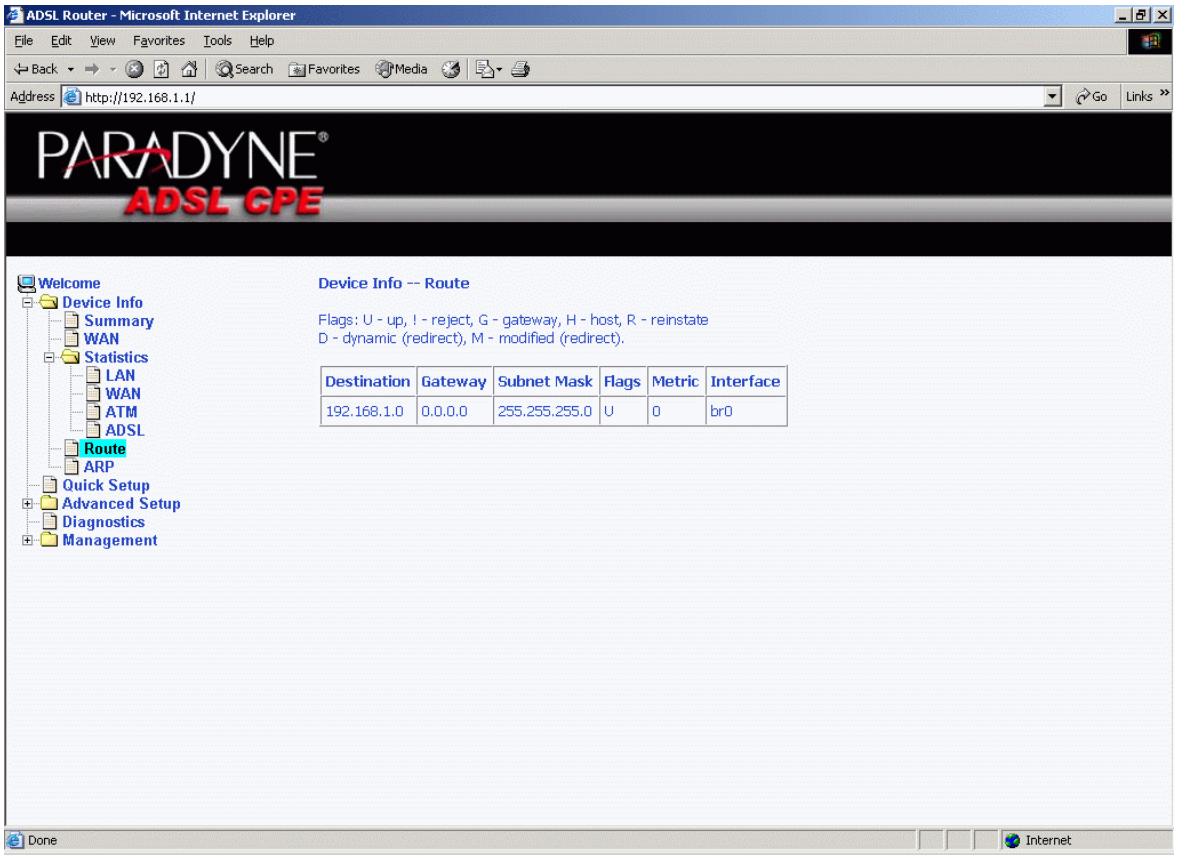


Figure 4.9 Device Info - Route

ARP

You can get the ARP status report from the router by clicking on the "**ARP**" item under "**Device Info**" (shown in Figure 4.10)

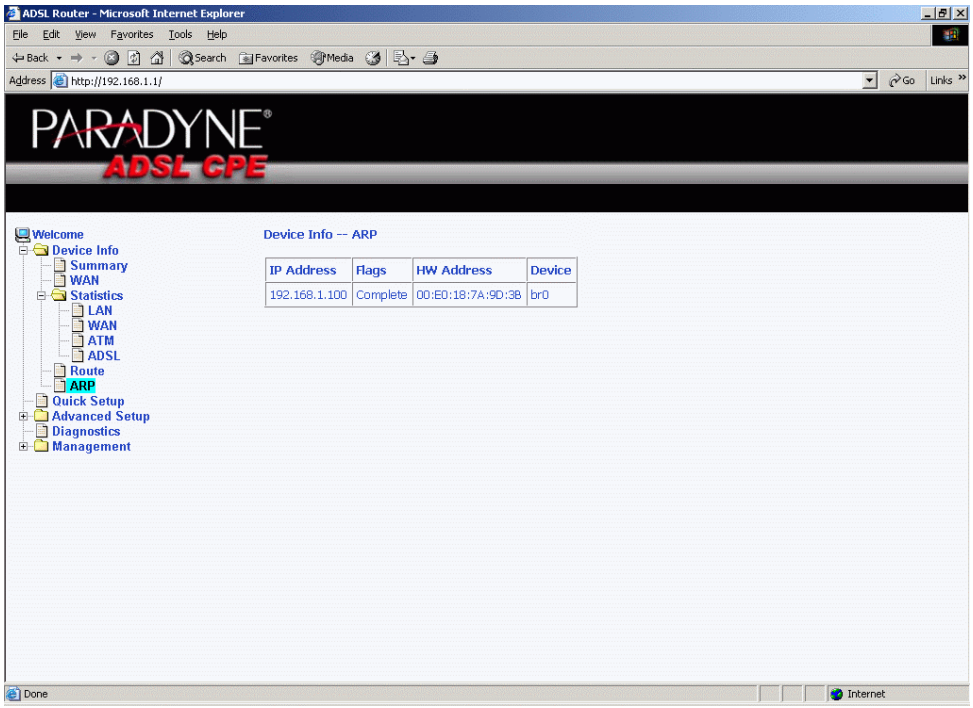


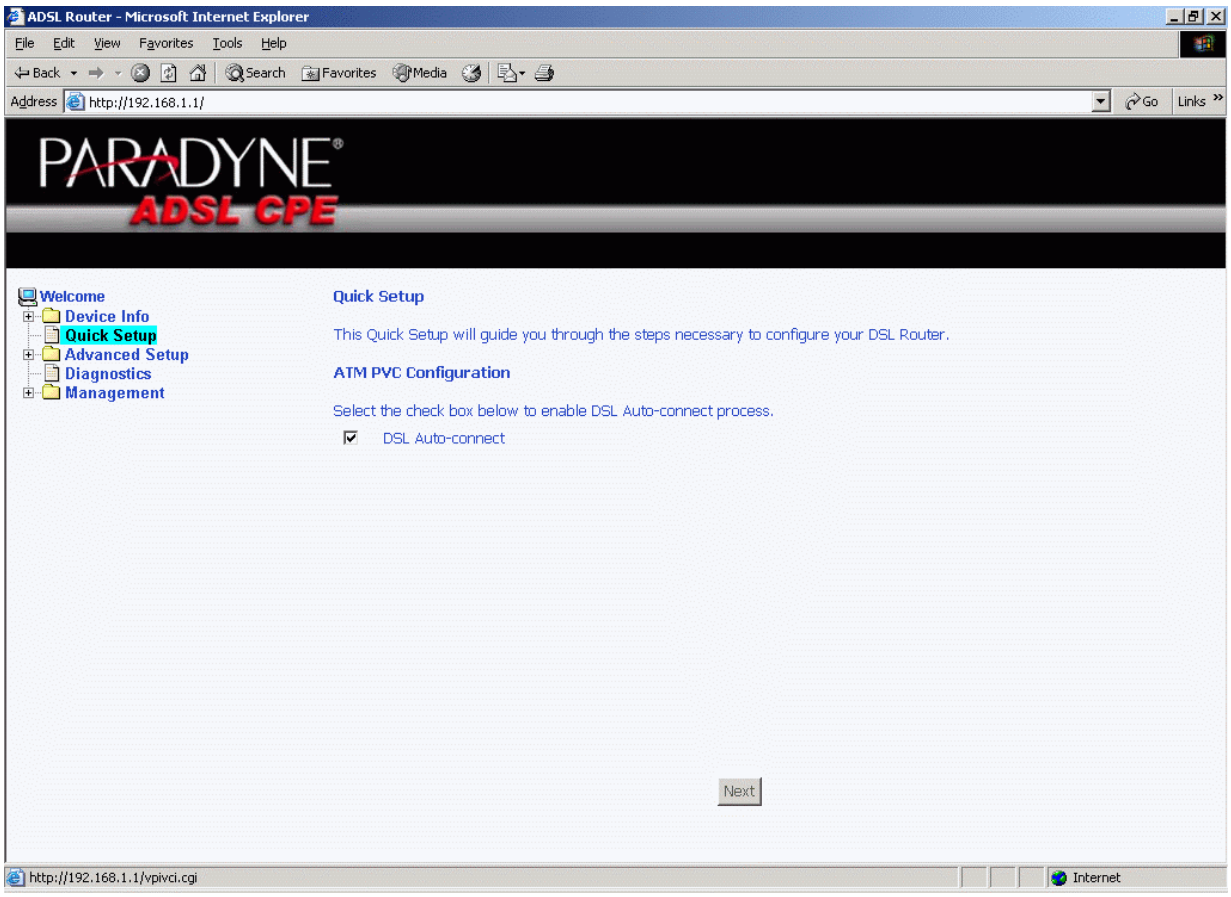
Figure 4.10 ARP Status

5 Quick Setup

This chapter guides you through the steps to configure your router.

Auto PVC

Auto-connect will automatically detect the first usable PVC and automatically detect PPPoE, PPPoA, and Bridge Protocol (with DHCP Server available).



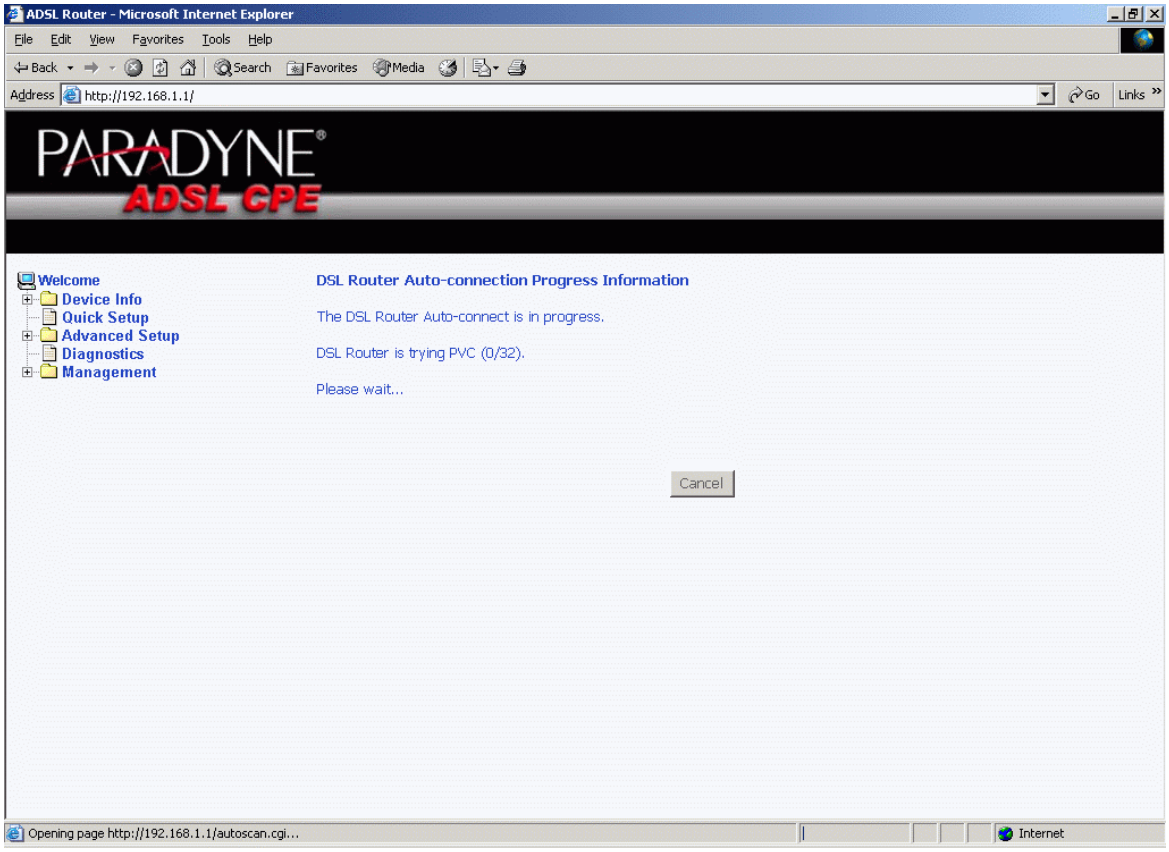


Figure 5.1 Detecting available PVC

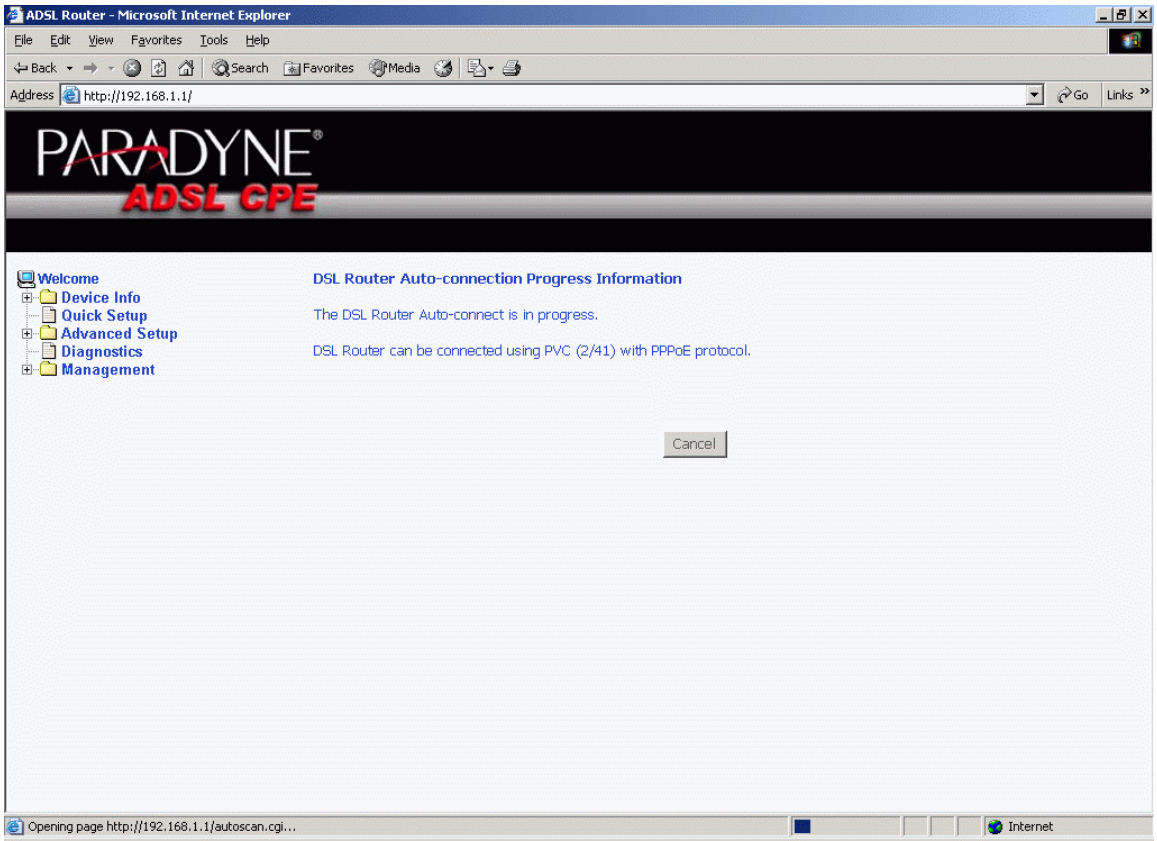


Figure 5.2 Detecting available PVC – Available PVC detected

Setting a PVC without Auto detecting

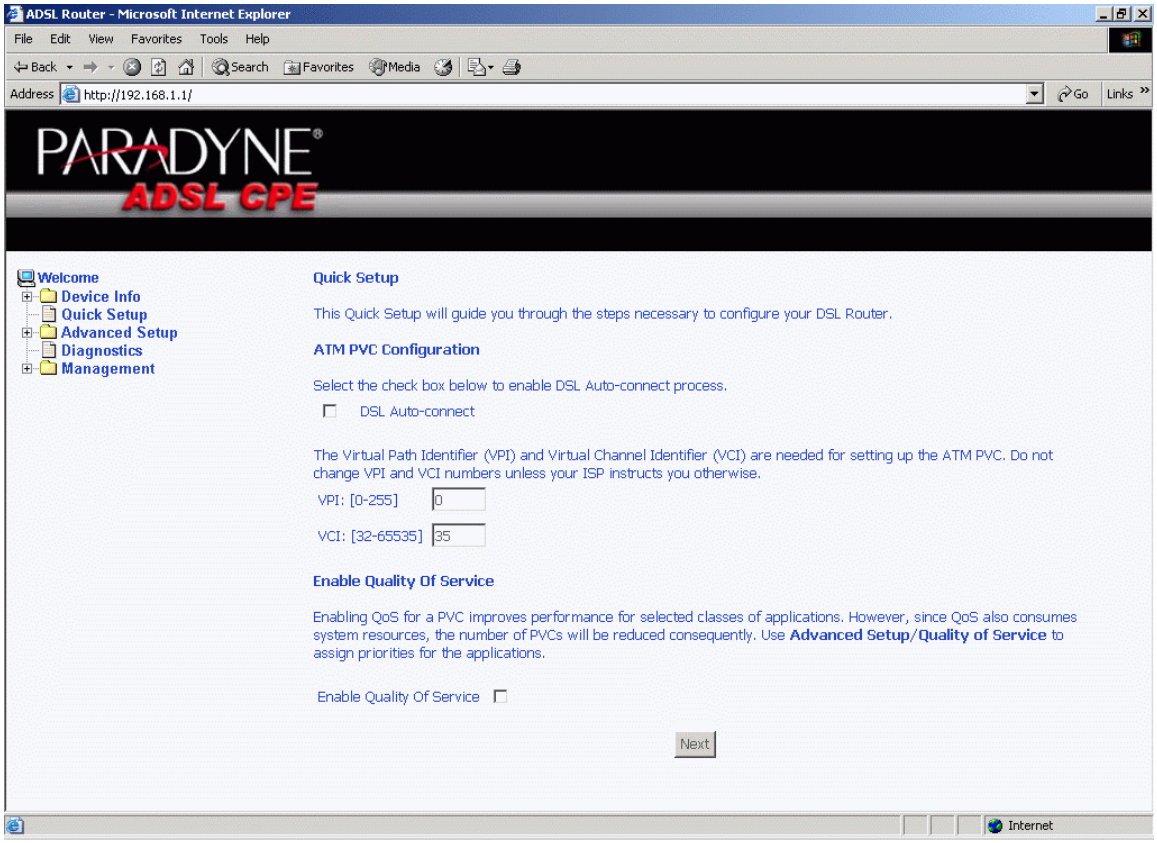

ADSL Router - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://192.168.1.1/
Go Links
PARADYNE
ADSL CPE
Welcome
Device Info
Quick Setup
Advanced Setup
Diagnostics
Management
Quick Setup
This Quick Setup will guide you through the steps necessary to configure your DSL Router.
ATM PVC Configuration
Select the check box below to enable DSL Auto-connect process.
DSL Auto-connect
The Virtual Path Identifier (VPI) and Virtual Channel Identifier (VCI) are needed for setting up the ATM PVC. Do not change VPI and VCI numbers unless your ISP instructs you otherwise.
VPI: [0-255] 0
VCI: [32-65535] 35
Enable Quality Of Service
Enabling QoS for a PVC improves performance for selected classes of applications. However, since QoS also consumes system resources, the number of PVCs will be reduced consequently. Use Advanced Setup/Quality of Service to assign priorities for the applications.
Enable Quality Of Service
Next
Internet

Figure 5.3 Without Auto PVC, the detail setting can reference "Advanced Setup"

6 Advanced Setup

The chapter contains informations about WAN, LAN, and ADSL settings.

WAN

Set up WAN parameters as directed by your ISP.

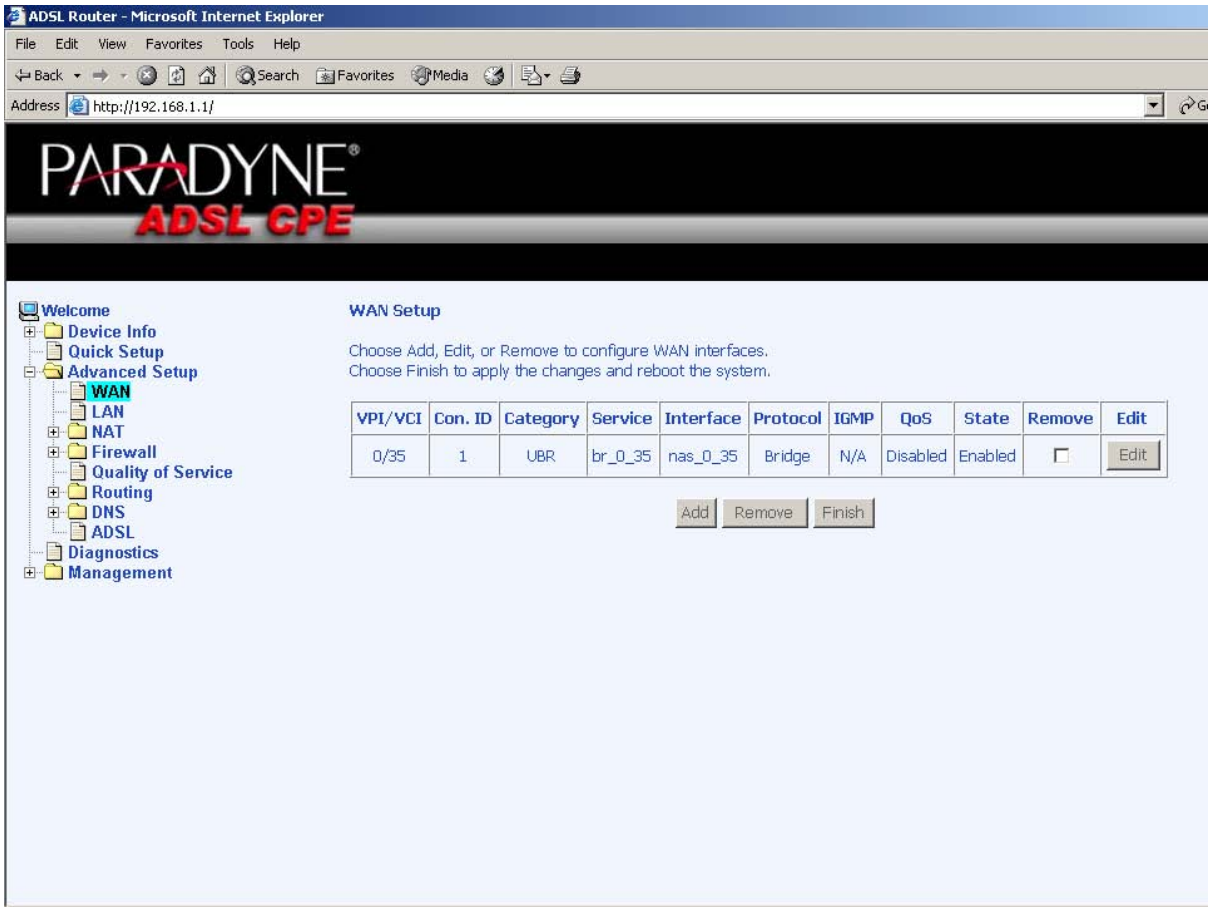


Figure 6-1 WAN Setup Page

Add Function

If you want to add a new rule for the WAN interface, click on the "**Add**" button. The ATM PVC Configuration screen appears.

ATM PVC Configuration Screen

The ATM PVC Configuration screen allows you to configure an ATM PVC identifier (VPI and VCI) and select a service category.

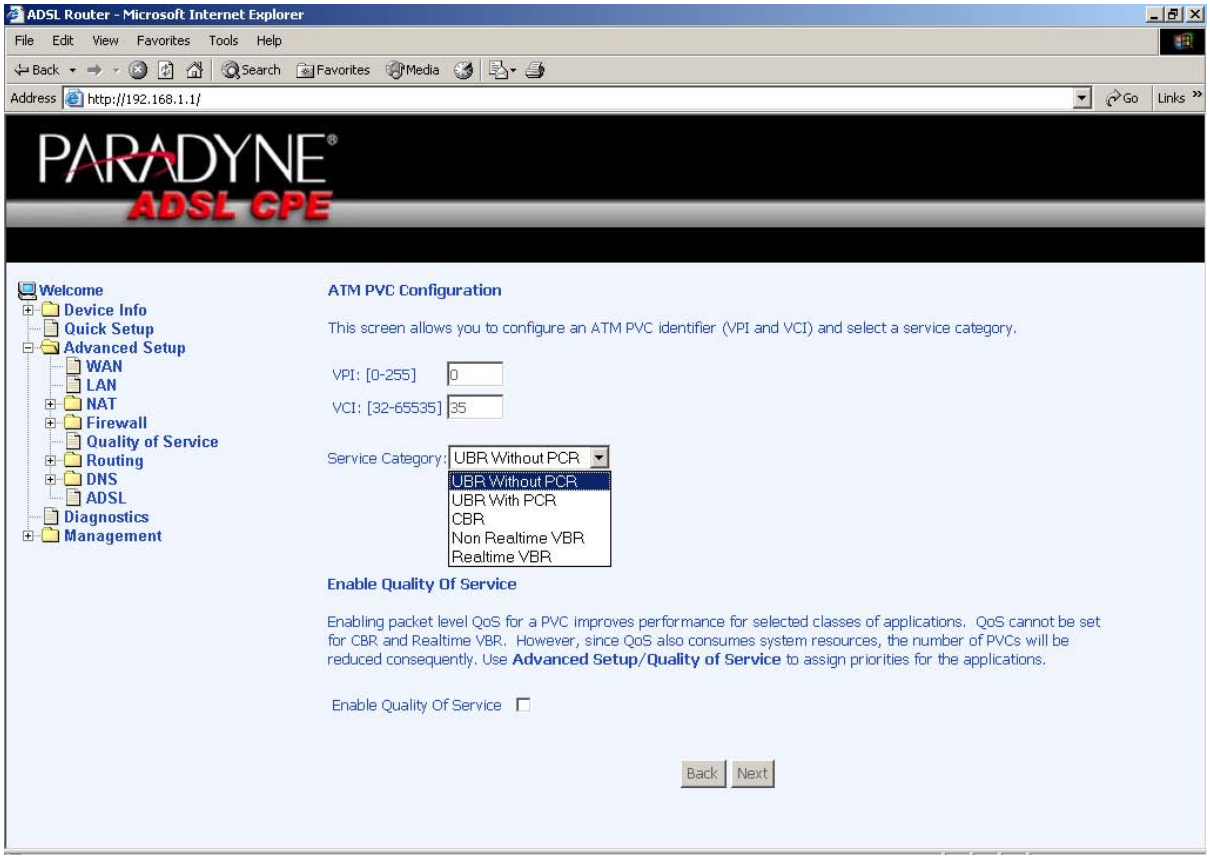

ADSL Router - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://192.168.1.1/
Go Links
PARADYNE
ADSL CPE
Welcome
Device Info
Quick Setup
Advanced Setup
WAN
LAN
NAT
Firewall
Quality of Service
Routing
DNS
ADSL
Diagnostics
Management
ATM PVC Configuration
This screen allows you to configure an ATM PVC identifier (VPI and VCI) and select a service category.
VPI: [0-255] 0
VCI: [32-65535] 35
Service Category: UBR Without PCR
UBR Without PCR
UBR With PCR
CBR
Non Realtime VBR
Realtime VBR
Enable Quality Of Service
Enabling packet level QoS for a PVC improves performance for selected classes of applications. QoS cannot be set for CBR and Realtime VBR. However, since QoS also consumes system resources, the number of PVCs will be reduced consequently. Use Advanced Setup/Quality of Service to assign priorities for the applications.
Enable Quality Of Service
Back
Next

Figure 6-2 ATM PVC Configuration Page

Verify the following values with your ISP before you change them.

VPI : Virtual Path Identifier. The valid range is 0 to 255.

VCI : Virtual Channel Identifier. The valid range is 32 to 65535.

Service Category : Five classes of traffic defined are defined:

- UBR Without PCR.
- UBR With PCR.
- CBR.
- Non Realtime VBR.
- Realtime VBR.

Connection Type Screen

Select the type of network protocol and encapsulation mode over the ATM PVC that your ISP has instructed you to use, then click on **Next** button.

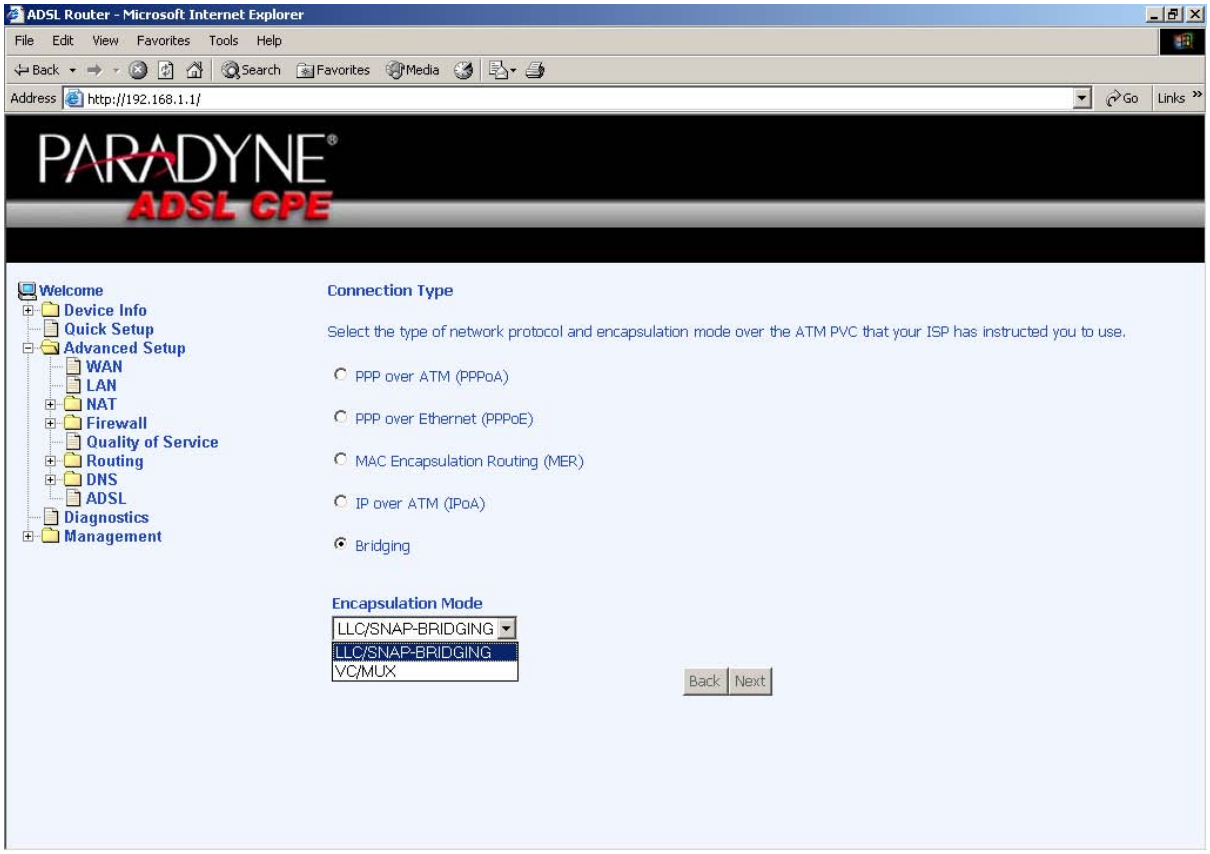


Figure 6-3 Connection Type Page

Bridge Service and Quality of Service Screen

This WAN service can be enabled or disabled by clicking in the check box.

Enabling QoS for a PVC improves performance for selected classes of applications. However, since QoS also consumes system resources, the number of PVCs is reduced. The default setting for QoS is disabled. If you want to enable QoS service, select the "Enable Quality Of Service" check box.

After finishing steps as above, click on the **Next** button.

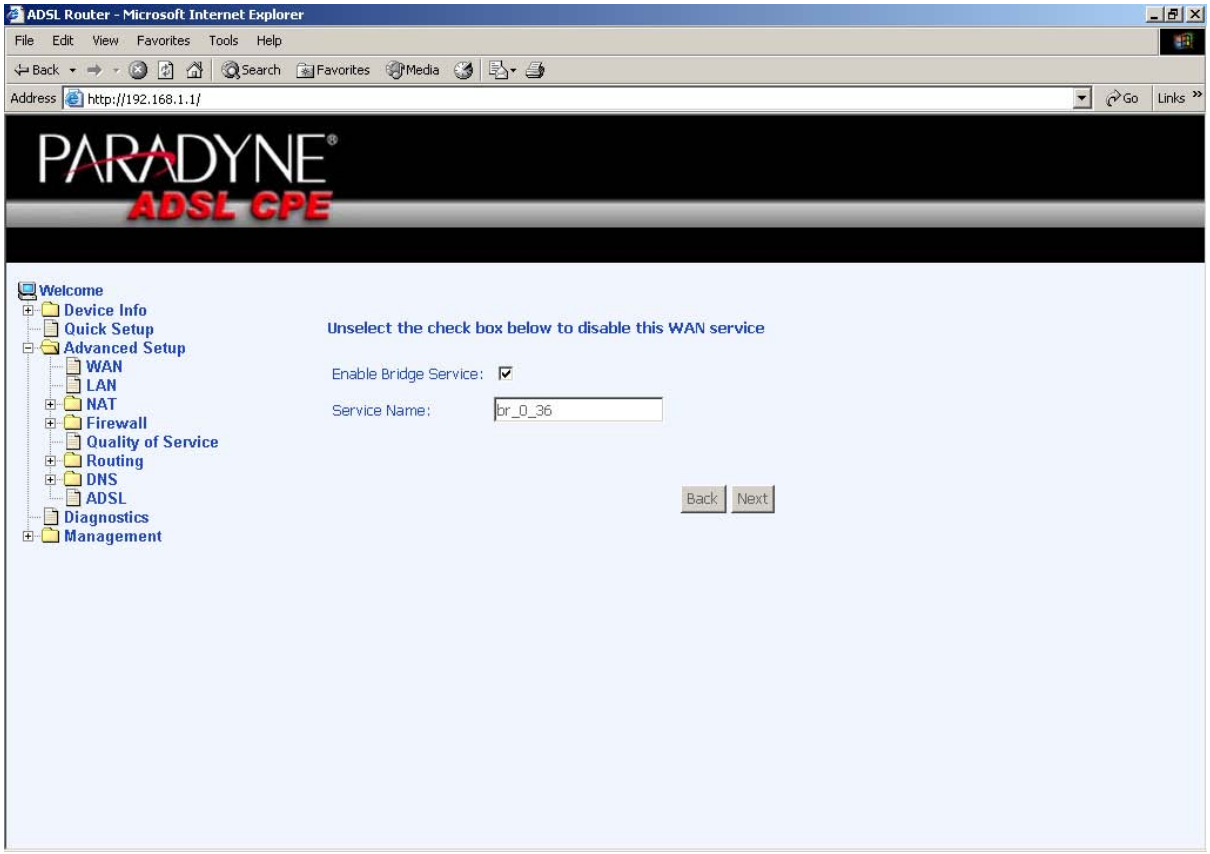


Figure 6-4 Enable Bridge Service

WAN Setup – Summary

Make sure that the settings on the WAN Setup screen match the settings provided by your ISP. If all settings are correct, click on the **Save** button to save these settings; if not, click on the **Back** button to make any modifications. If you want to change some items after being finished settings, you also click on the **Edit** button to make any modifications.

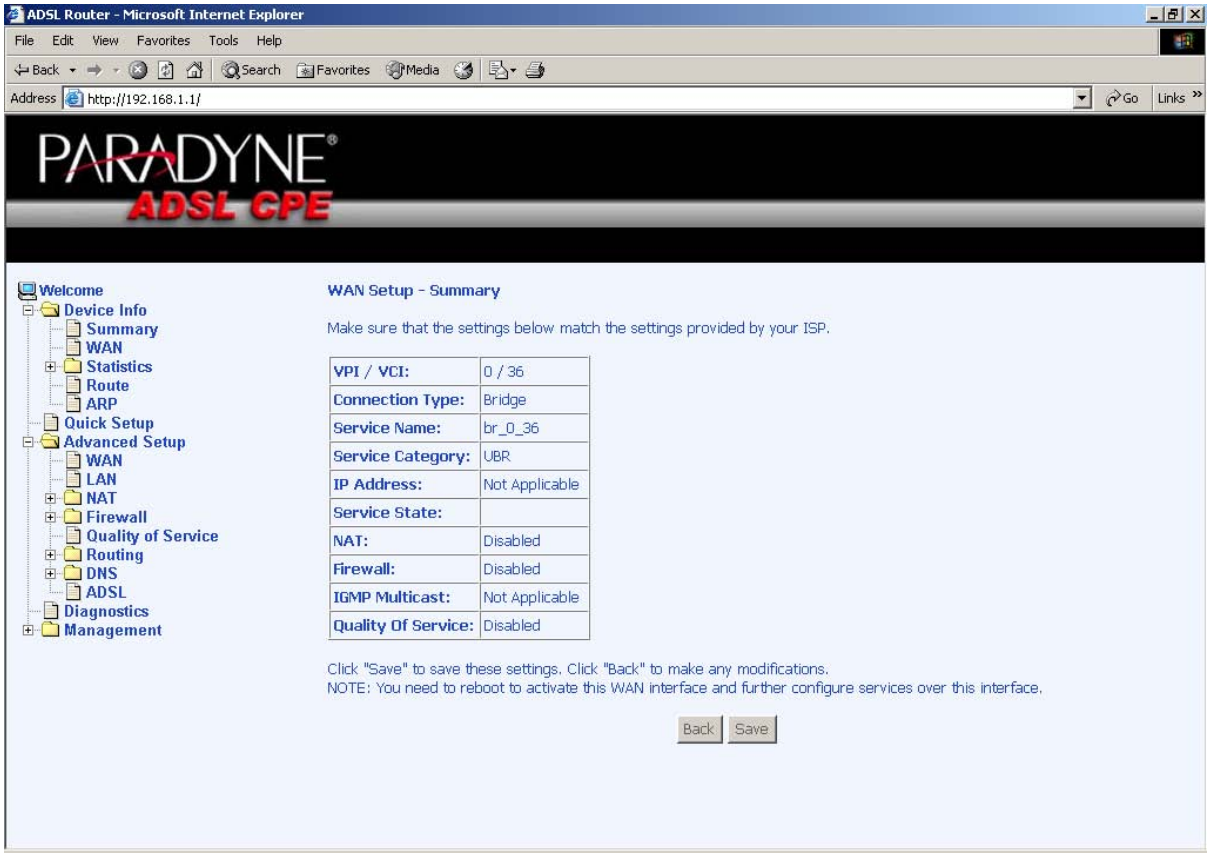


Figure 6-5 WAN Setup Summary

Note

You need to activate this WAN interface by clicking on the Finish button and further configure services over this interface. The router supports up to five WAN connections.

Remove Function

If you want to delete a connection from the listed WAN setup, click in the Remove check box next to the item, then click on the **Remove** button.

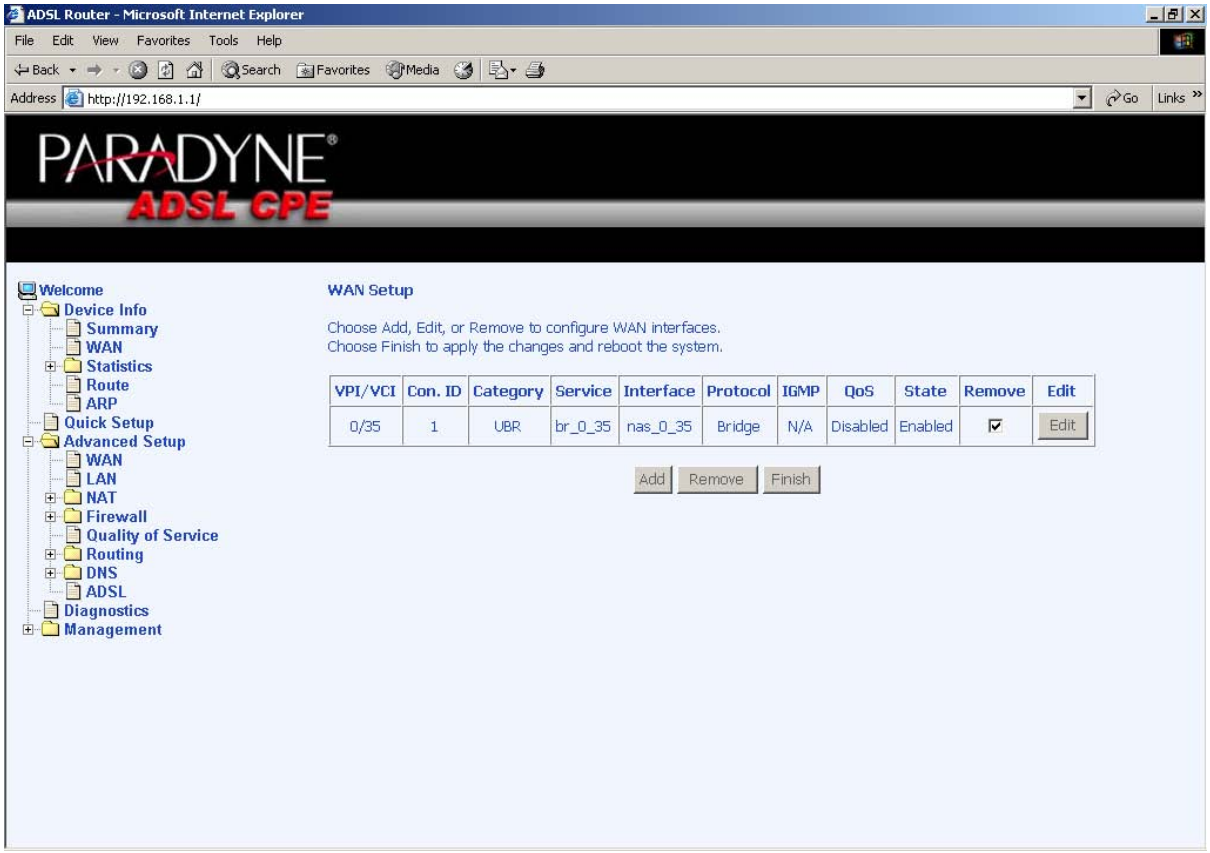


Figure 6-6 WAN Setup

Finish Function

After you change any item in WAN Setup, remember to click on the **Finish** button to apply the changes and reboot the system.

LAN

Local Area Network (LAN) Setup

You can configure the DSL Router IP address and Subnet Mask for the LAN interface to conform your LAN's IP Subnet. The **Save** button only saves the LAN configuration data. The **Save/Reboot** button saves the LAN configuration data and reboots the router to make the new configuration effective.

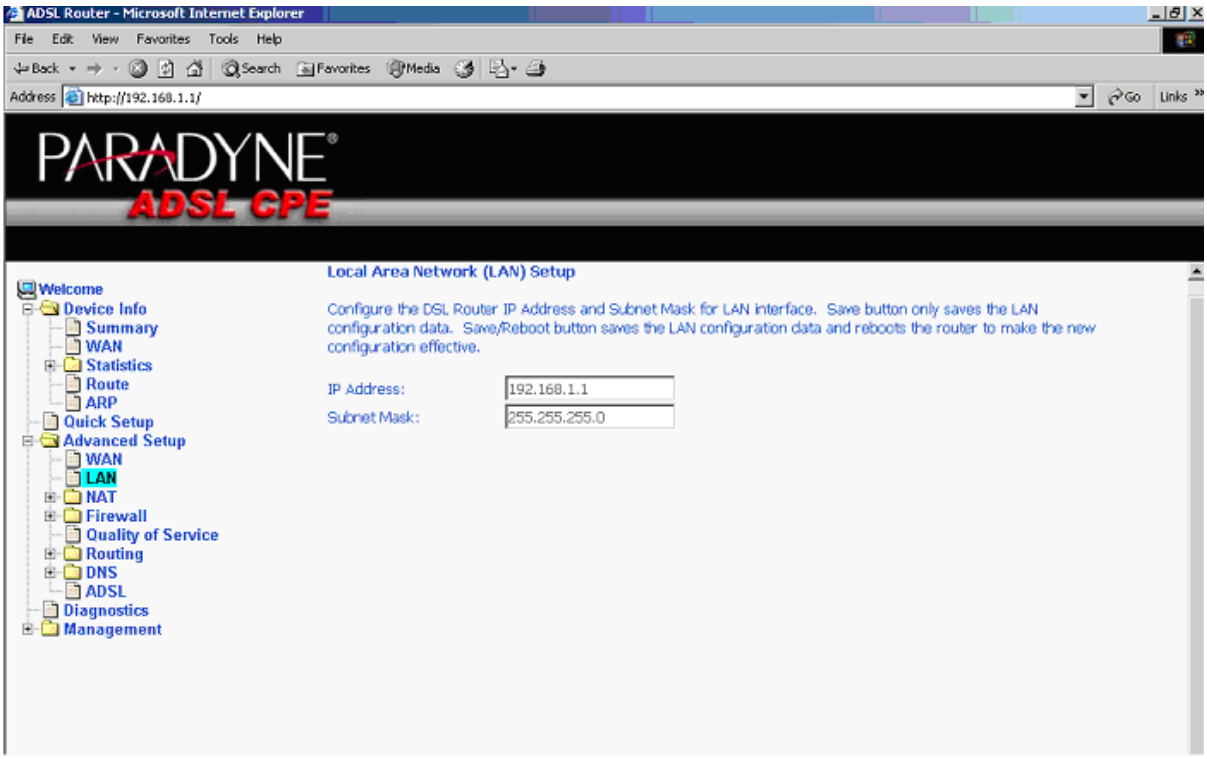


Figure 6-7 LAN Setup

NAT

You can configure the Virtual Server, Port Triggering, and DMZ Host when NAT is enabled.

Virtual Servers

A virtual server allows you to direct incoming traffic from the WAN side to a specific IP address on the LAN side. Click on the **Add** button to add a virtual server.

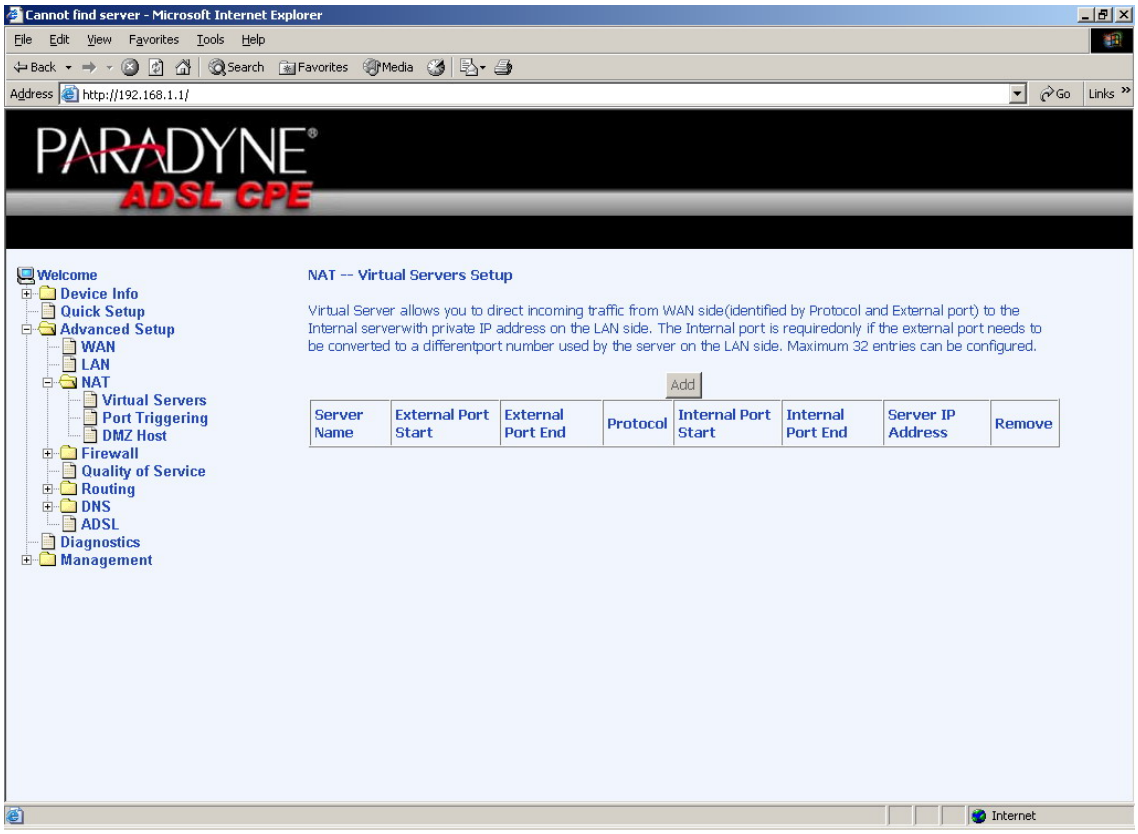


Figure 6.8 Virtual Server Setup Page

You can select a Service or make new one. Enter the Server IP Address, then click on **Save/Apply** to submit your configuration.

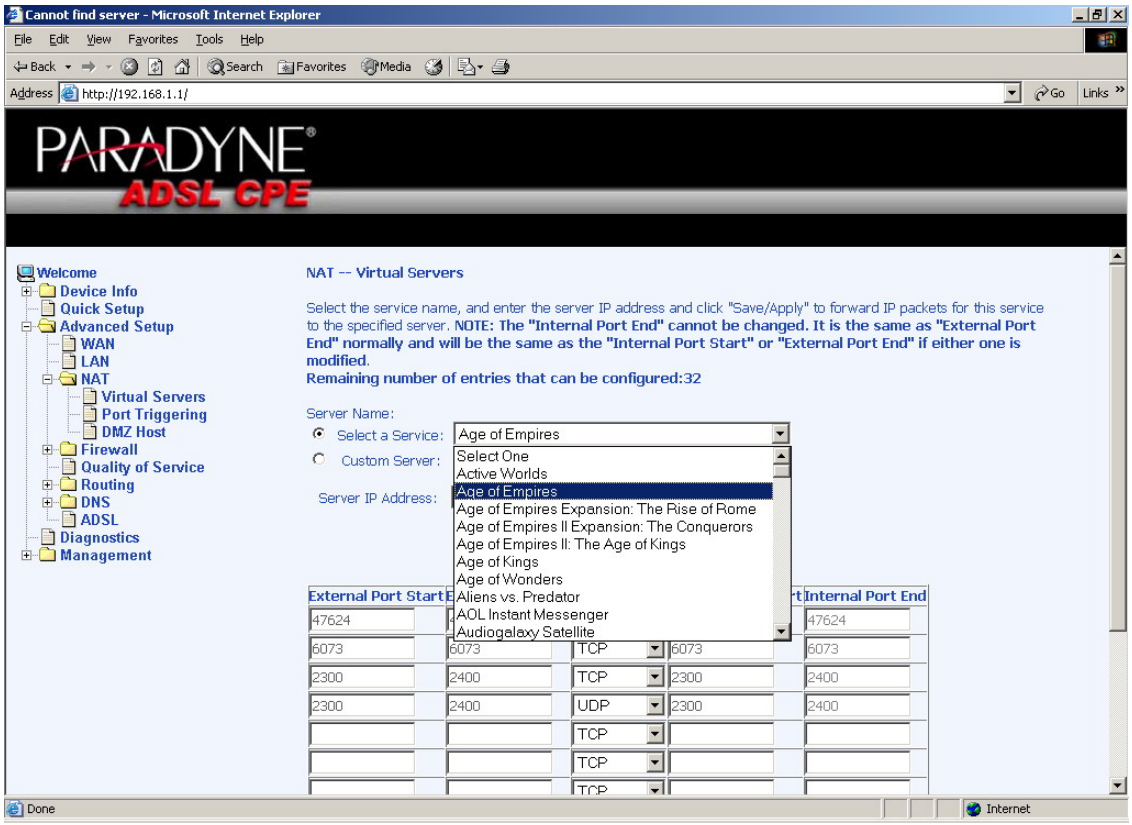


Figure 6.7 Virtual Server Add Page

On this screen you can view and delete servers. Click in the check box under Remove and click on the **Remove** button to delete selected virtual servers.

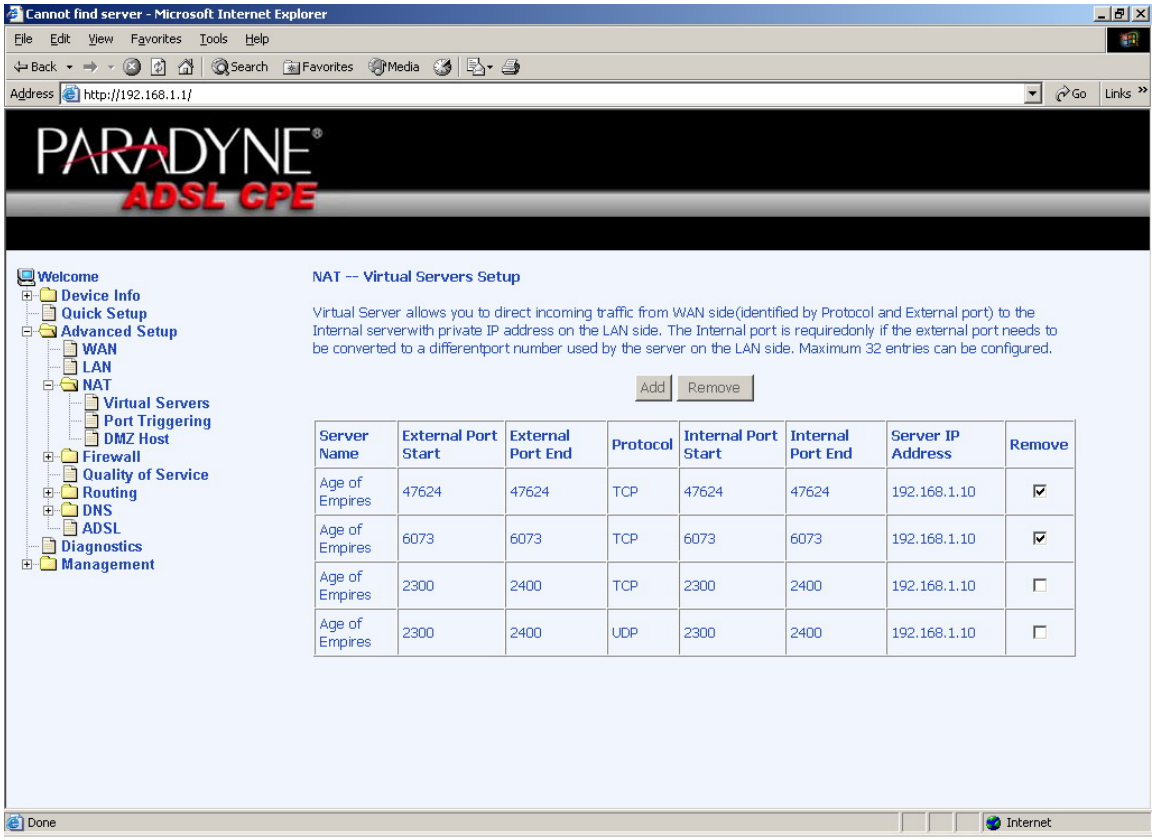

Cannot find server - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://192.168.1.1/
Go Links
PARADYNE
ADSL CPE
Welcome
Device Info
Quick Setup
Advanced Setup
WAN
LAN
NAT
Virtual Servers
Port Triggering
DMZ Host
Firewall
Quality of Service
Routing
DNS
ADSL
Diagnostics
Management
NAT -- Virtual Servers Setup
Virtual Server allows you to direct incoming traffic from WAN side(identified by Protocol and External port) to the Internal serverwith private IP address on the LAN side. The Internal port is requiredonly if the external port needs to be converted to a differentport number used by the server on the LAN side. Maximum 32 entries can be configured.
Add Remove
Server Name | External Port Start | External Port End | Protocol | Internal Port Start | Internal Port End | Server IP Address | Remove
Age of Empires | 47624 | 47624 | TCP | 47624 | 47624 | 192.168.1.10 | ☑
Age of Empires | 6073 | 6073 | TCP | 6073 | 6073 | 192.168.1.10 | ☑
Age of Empires | 2300 | 2400 | TCP | 2300 | 2400 | 192.168.1.10 | ☐
Age of Empires | 2300 | 2400 | UDP | 2300 | 2400 | 192.168.1.10 | ☐
Done
Internet

Figure 6.8 Virtual Server List

Port Triggering

Click the on the **Add** button to add Port Triggering for your Internet application.

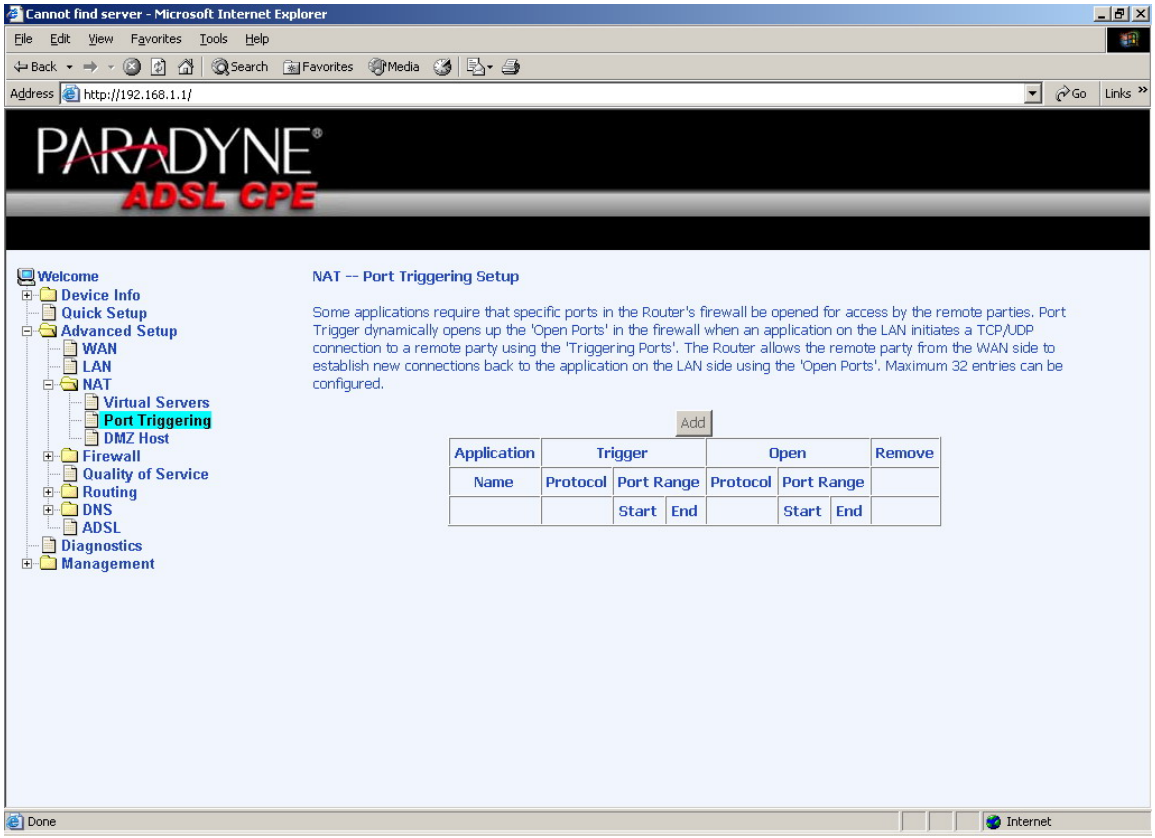


Figure 6.9 Port Triggering Setup Page

You can select an application every time or create new one for your application. Then click on **Save/Apply** to save your settings.

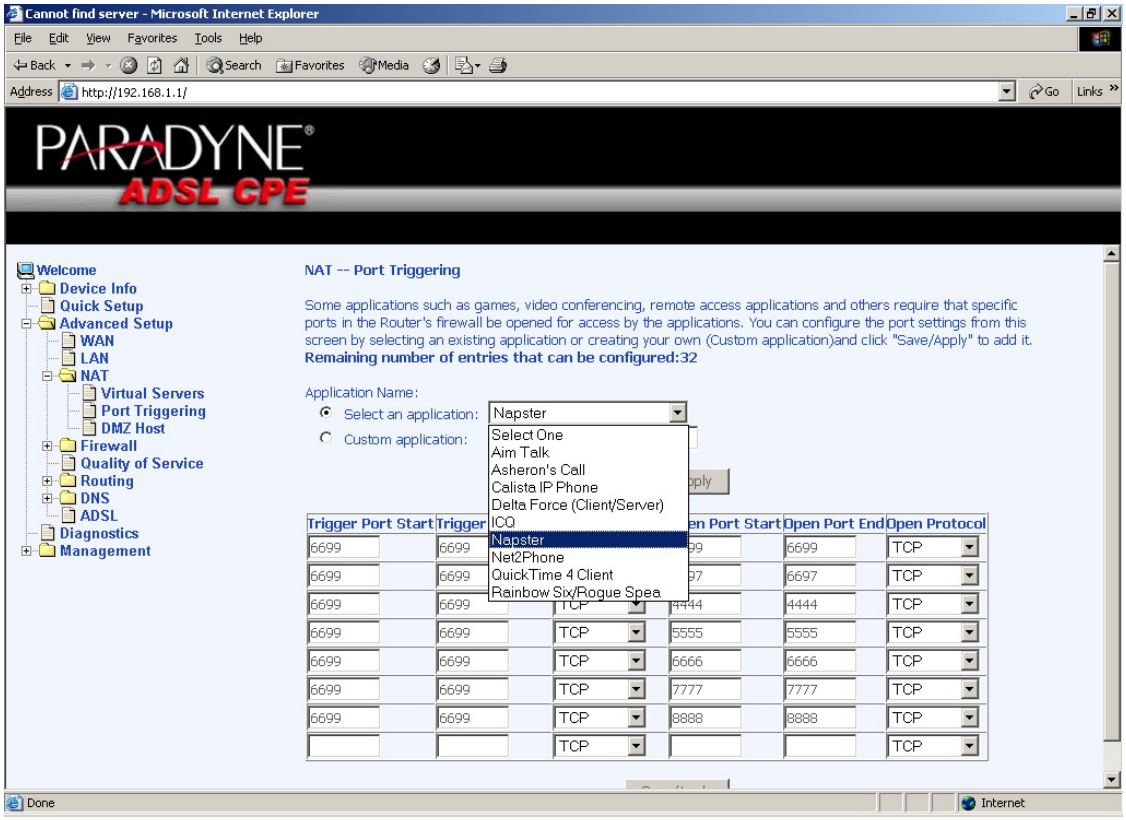


Figure 6.10 Port Triggering Add Page

On this screen you can view and delete applications. Click in the check box under Remove and click on the **Remove** button to delete selected applications.

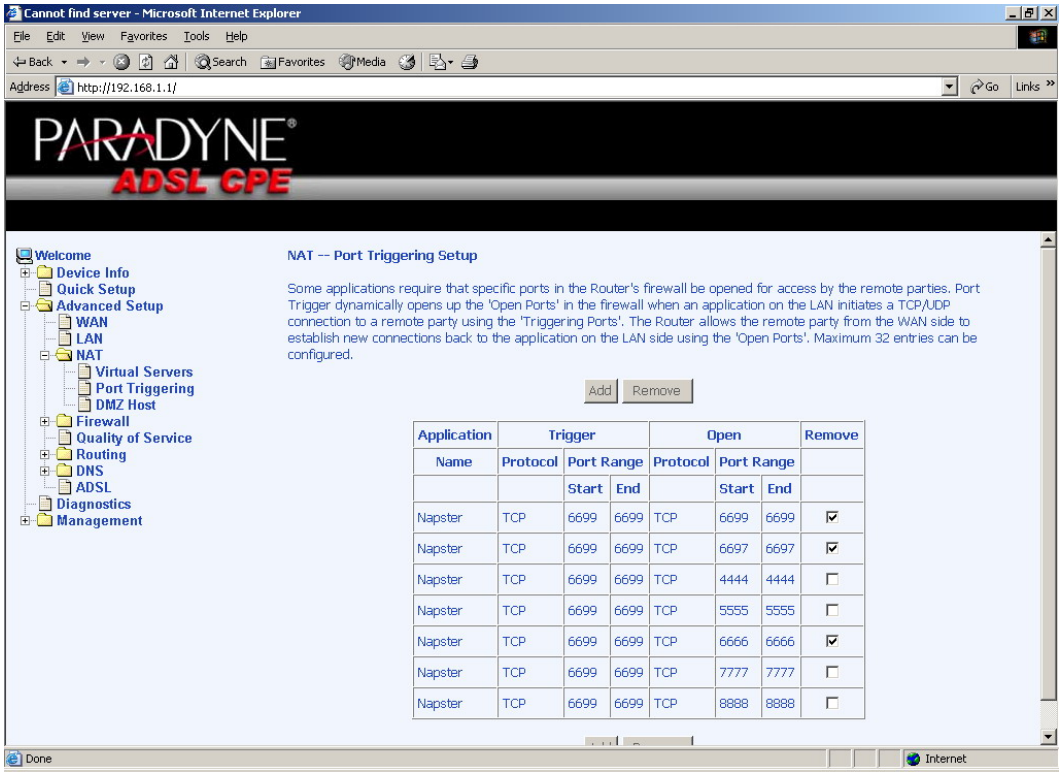

Cannot find server - Microsoft Internet Explorer
Address http://192.168.1.1/
PARADYNE
ADSL CPE
Welcome
Device Info
Quick Setup
Advanced Setup
WAN
LAN
NAT
Virtual Servers
Port Triggering
DMZ Host
Firewall
Quality of Service
Routing
DNS
ADSL
Diagnostics
Management
NAT -- Port Triggering Setup
Some applications require that specific ports in the Router's firewall be opened for access by the remote parties. Port Trigger dynamically opens up the 'Open Ports' in the firewall when an application on the LAN initiates a TCP/UDP connection to a remote party using the 'Triggering Ports'. The Router allows the remote party from the WAN side to establish new connections back to the application on the LAN side using the 'Open Ports'. Maximum 32 entries can be configured.
Add
Remove
Application Name
Trigger
Open
Remove
Protocol
Port Range
Start
End
Napster TCP 6699 6699 TCP 6699 6699
Napster TCP 6699 6699 TCP 6697 6697
Napster TCP 6699 6699 TCP 4444 4444
Napster TCP 6699 6699 TCP 5555 5555
Napster TCP 6699 6699 TCP 6666 6666
Napster TCP 6699 6699 TCP 7777 7777
Napster TCP 6699 6699 TCP 8888 8888
Done
Internet

Figure 6.11 Port Triggering List

DMZ Host

You can define the IP address of the DMZ Host on this screen. Enter the IP address and click on **Save/Apply**.

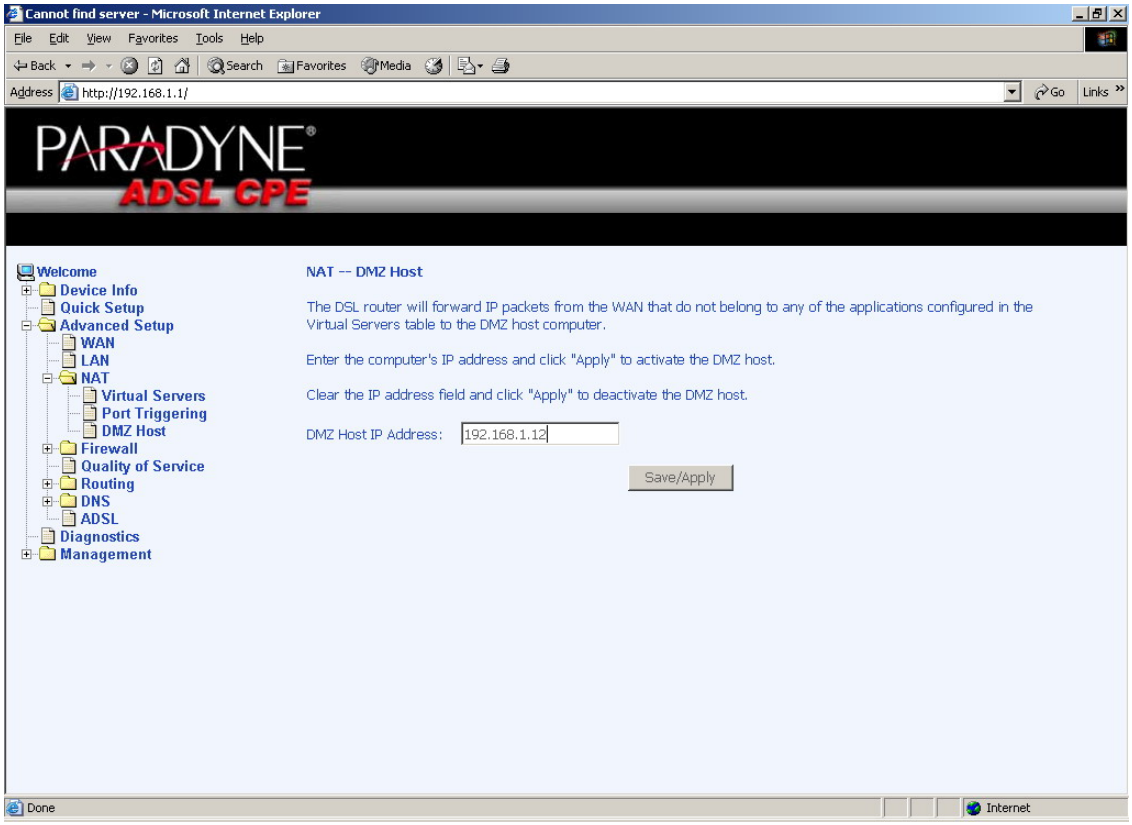


Figure 6.12 DMZ Host Setup Page

Firewall

IP Filtering

Outgoing

The outgoing filter will block the traffic from the LAN side to the WAN side. Click on **Add** to create filters.

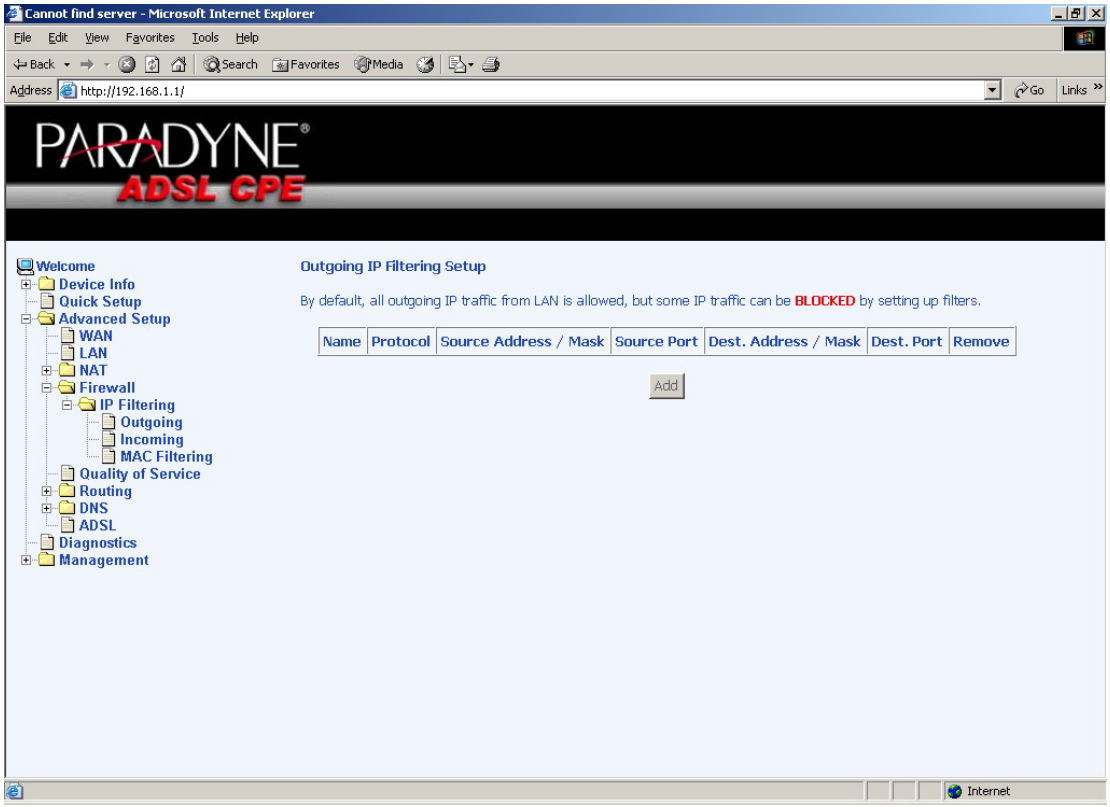


Figure 6.13 IP Filtering – Outgoing Filtering Setup Page

Input the filter name, source information (from the LAN side), and Destination information (from the WAN side). Then click on **Save/Apply**.

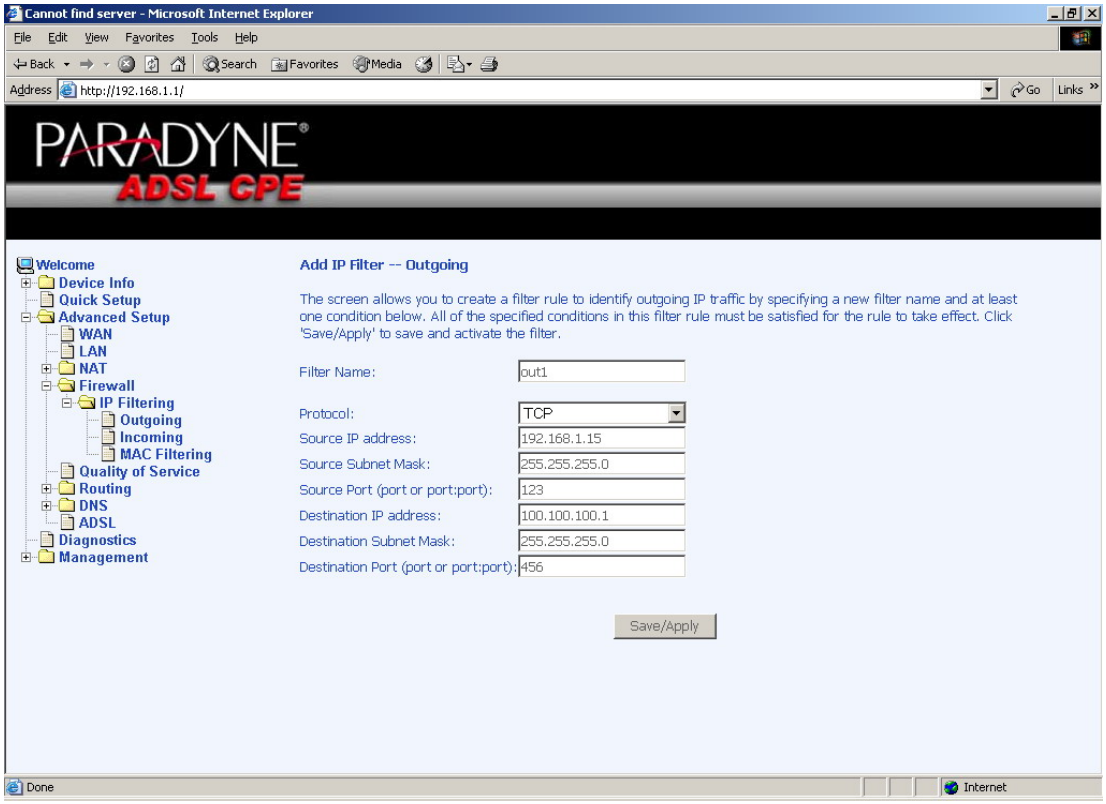


Figure 6.14 IP Filtering – Outgoing Filtering Add Page

You can view and delete the outgoing filter settings on this screen.

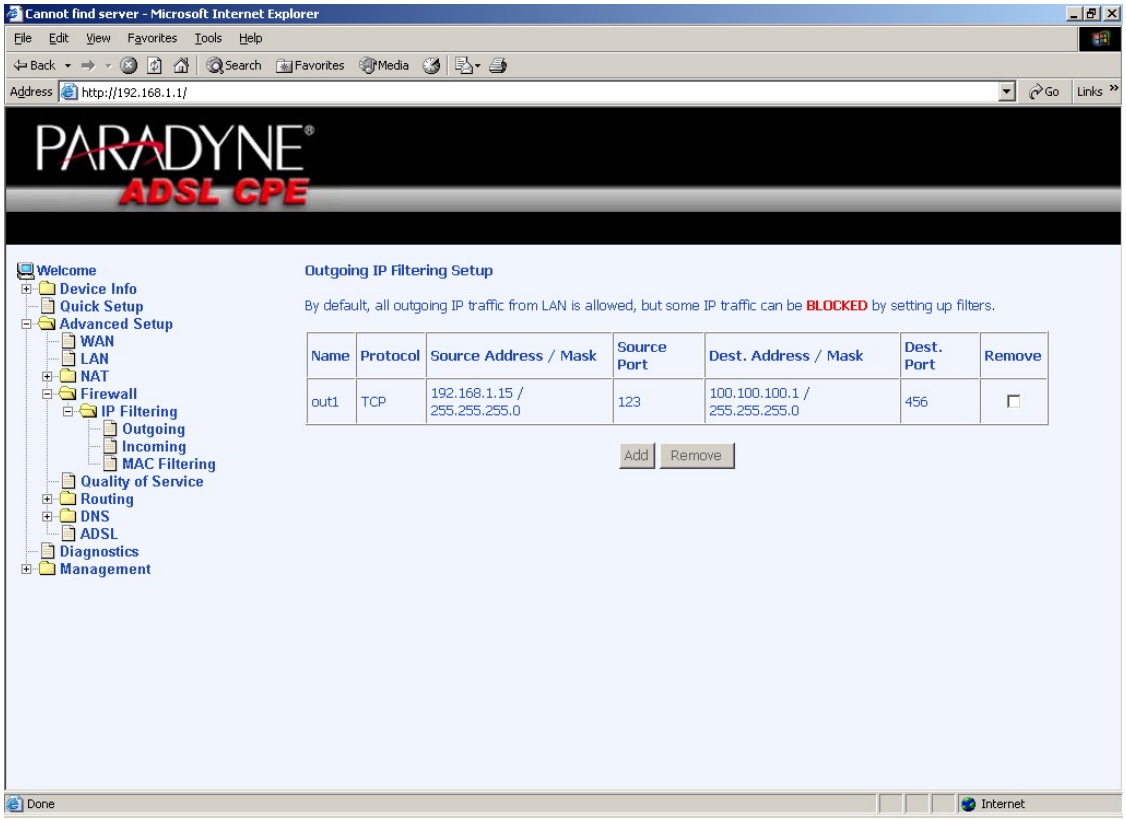


Figure 6.15 IP Filtering – Outgoing Filtering Setup List

Incoming

Incoming filter filters the traffic from the WAN side to the LAN side. Click on **Add** to add incoming filter settings.

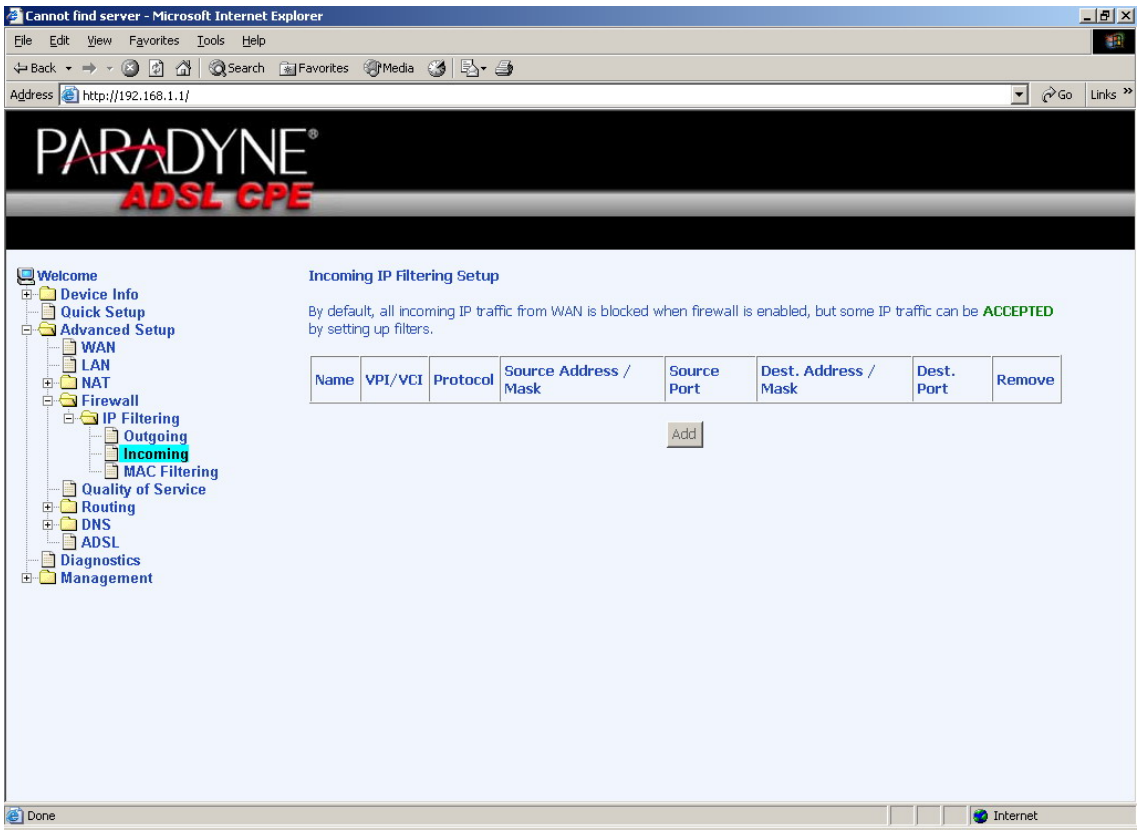


Figure 6.16 IP Filtering – Incoming Filtering Setup Page

Enter a filter name, information about the source address (from the WAN side), and information about the destination address (to the LAN side). Select the protocol and WAN interface. Then click on **Save/Apply** to add the setting.

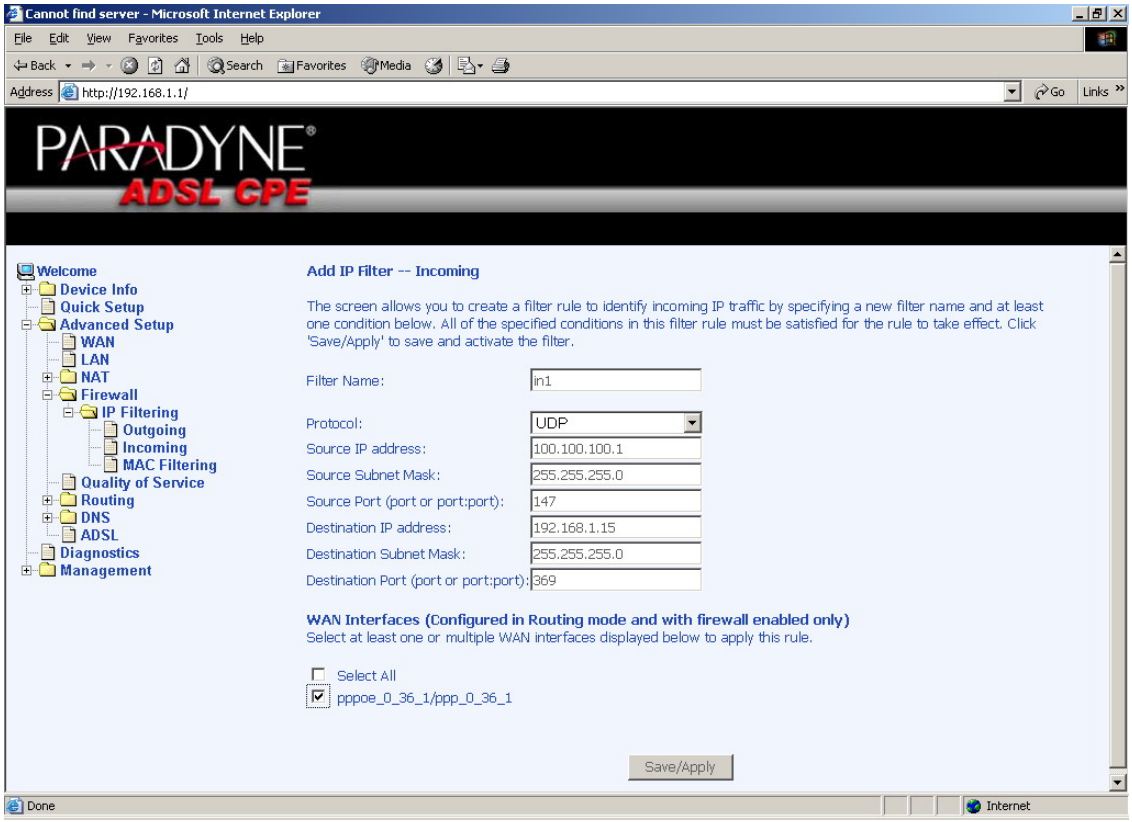

Cannot find server - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://192.168.1.1/
Go Links
PARADYNE
ADSL CPE
Welcome
Device Info
Quick Setup
Advanced Setup
WAN
LAN
NAT
Firewall
IP Filtering
Outgoing
Incoming
MAC Filtering
Quality of Service
Routing
DNS
ADSL
Diagnostics
Management
Add IP Filter -- Incoming
The screen allows you to create a filter rule to identify incoming IP traffic by specifying a new filter name and at least one condition below. All of the specified conditions in this filter rule must be satisfied for the rule to take effect. Click 'Save/Apply' to save and activate the filter.
Filter Name: in1
Protocol: UDP
Source IP address: 100.100.100.1
Source Subnet Mask: 255.255.255.0
Source Port (port or port:port): 147
Destination IP address: 192.168.1.15
Destination Subnet Mask: 255.255.255.0
Destination Port (port or port:port): 369
WAN Interfaces (Configured in Routing mode and with firewall enabled only)
Select at least one or multiple WAN interfaces displayed below to apply this rule.
Select All
pppoe_0_36_1/ppp_0_36_1
Save/Apply
Done
Internet

Figure 6.17 IP Filtering – Incoming Filtering Add Page

You can view and delete the incoming filter settings from this screen.

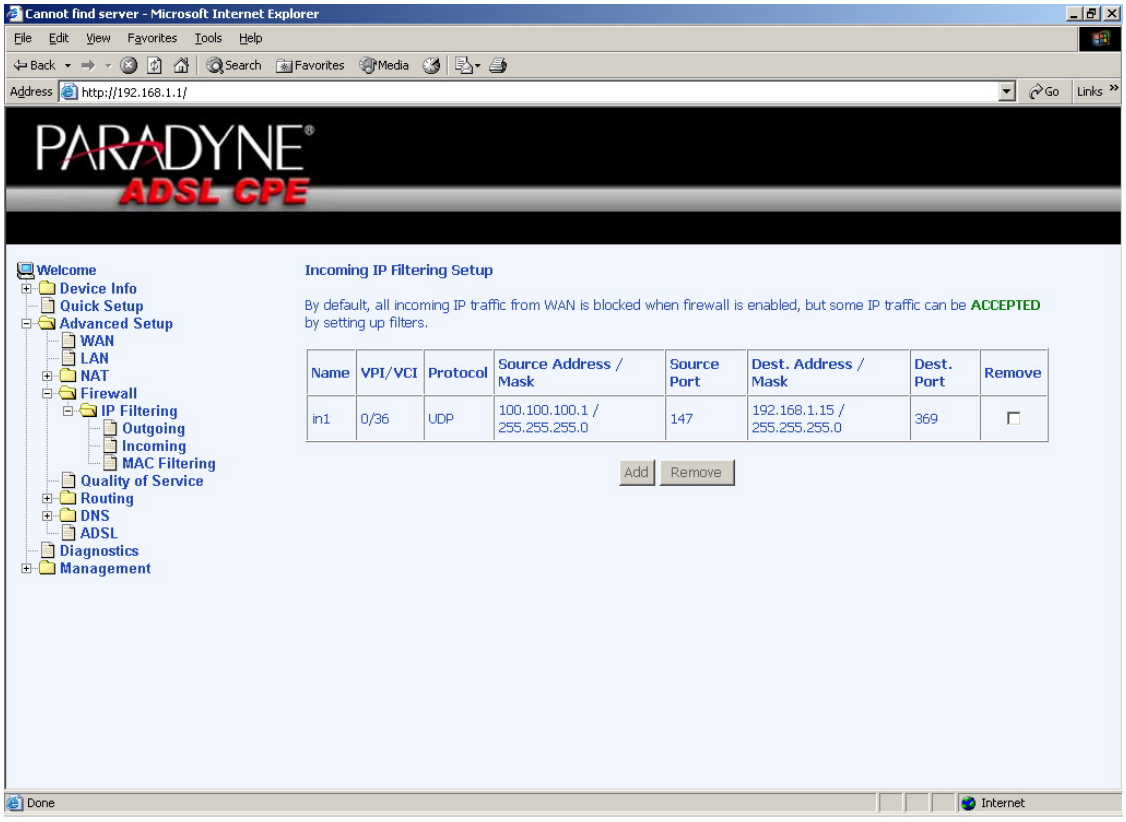


Figure 6.18 IP Filtering – Incoming Filtering List

MAC Filtering

MAC filtering can forward or block traffic by MAC address. You can change the policy or add settings to the MAC filtering table using the MAC Filtering Setup screen.

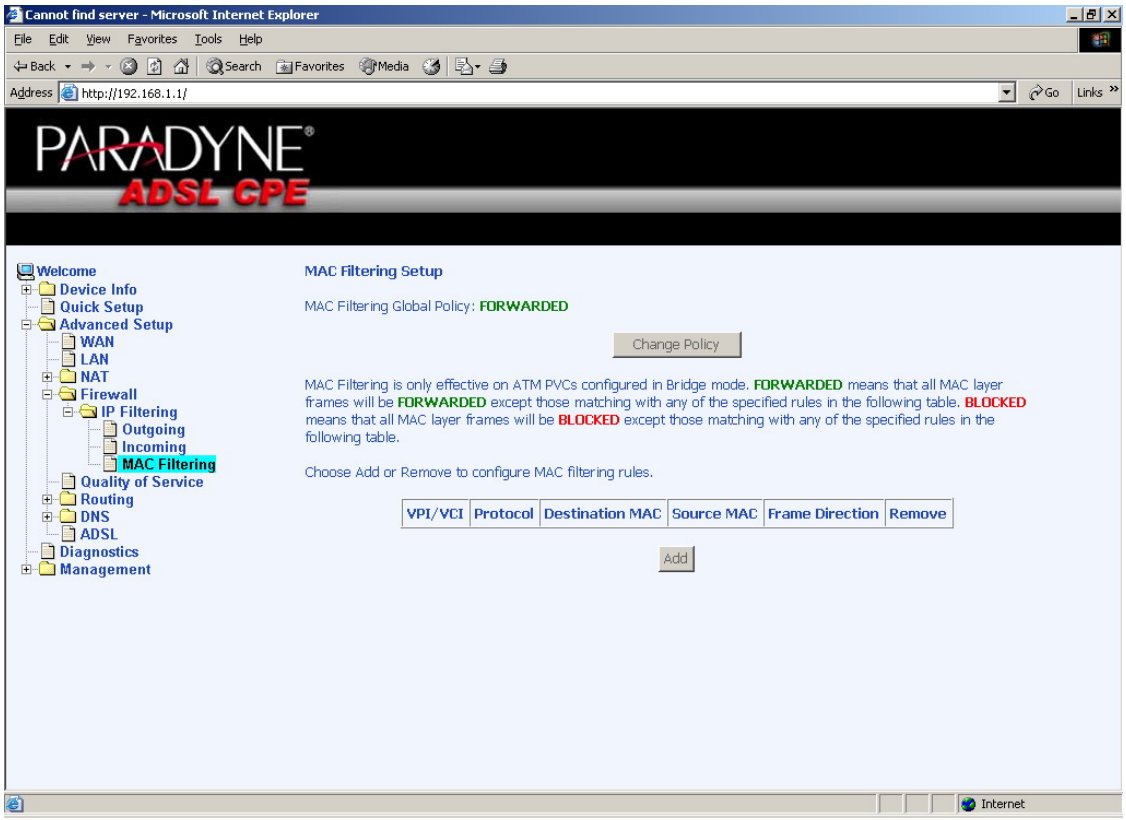


Figure 6.19 IP Filtering – MAC Filtering Setup Page

If you click on **Change Policy**, a confirmation dialog lets you verify your change.

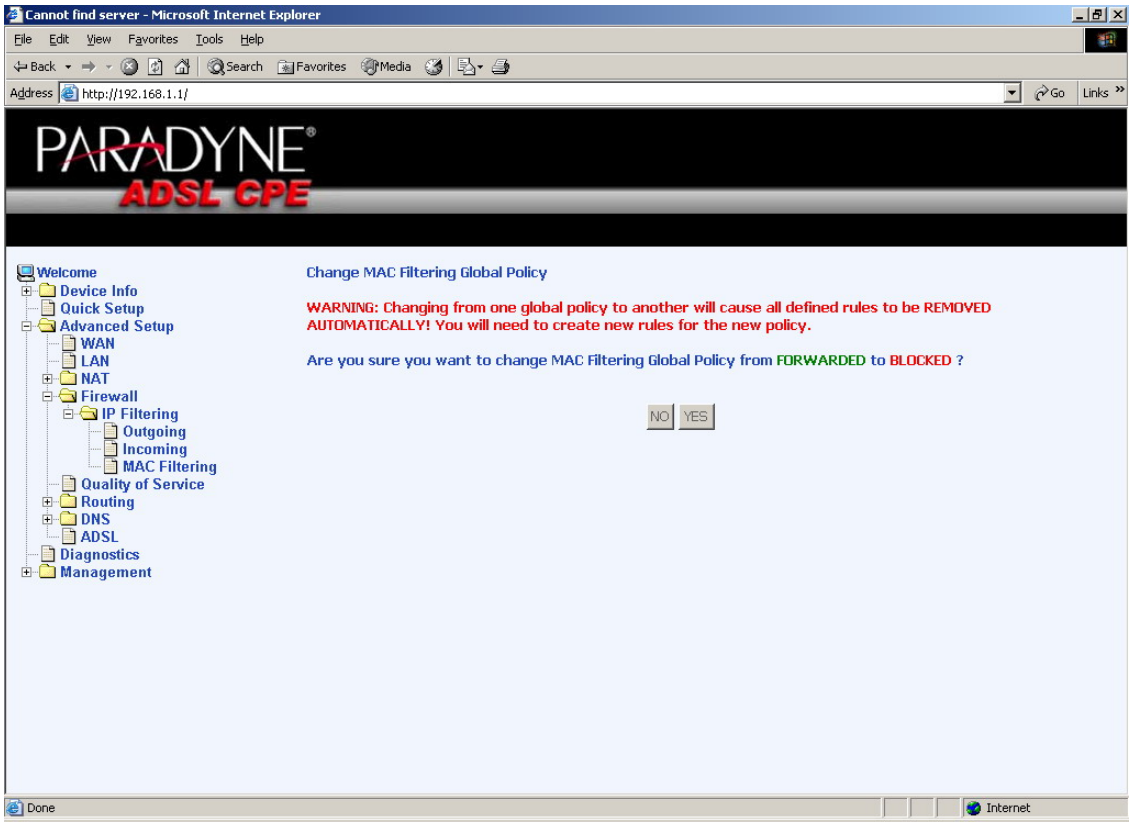


Figure 6.20 IP Filtering – MAC Filtering Policy Change Confirmation

If you want to add a setting to the MAC filtering table, enter the Source and Destination MAC address, and select protocol type, frame direction, and WAN interface. Then click on **Save/Apply** to save it.

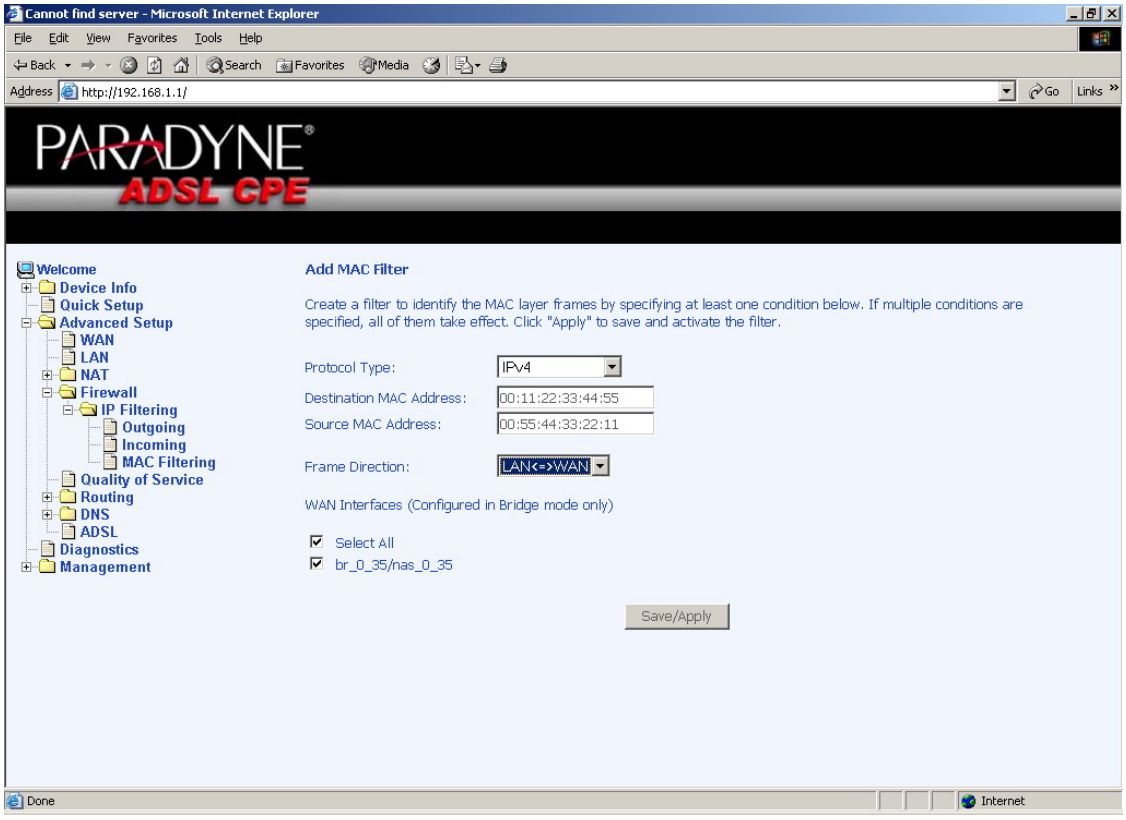


Figure 6.21 IP Filtering – MAC Filtering Add Page

On this screen you can view and delete MAC filtering rules.

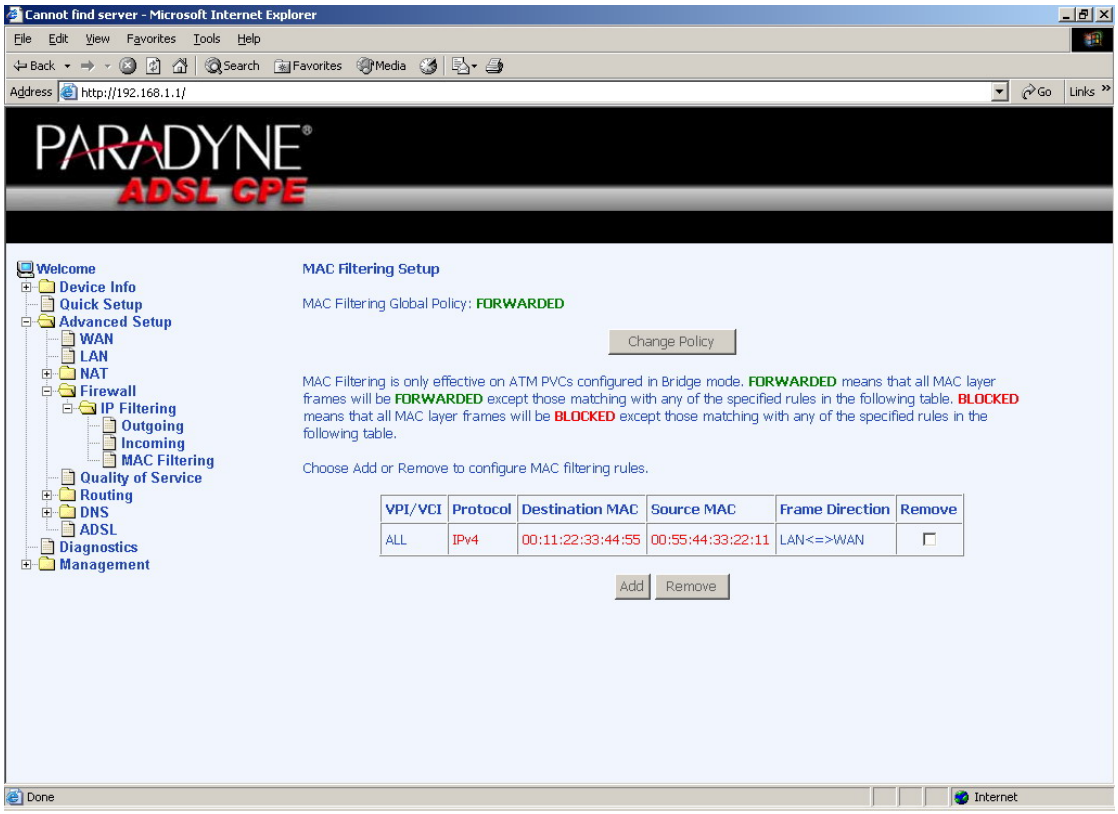

Cannot find server - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://192.168.1.1/
Go Links
PARADYNE
ADSL CPE
Welcome
Device Info
Quick Setup
Advanced Setup
WAN
LAN
NAT
Firewall
IP Filtering
Outgoing
Incoming
MAC Filtering
Quality of Service
Routing
DNS
ADSL
Diagnostics
Management
MAC Filtering Setup
MAC Filtering Global Policy: FORWARDED
Change Policy
MAC Filtering is only effective on ATM PVCs configured in Bridge mode. FORWARDED means that all MAC layer frames will be FORWARDED except those matching with any of the specified rules in the following table. BLOCKED means that all MAC layer frames will be BLOCKED except those matching with any of the specified rules in the following table.
Choose Add or Remove to configure MAC filtering rules.
VPI/VCI Protocol Destination MAC Source MAC Frame Direction Remove
ALL IPv4 00:11:22:33:44:55 00:55:44:33:22:11 LAN<=>WAN
Add Remove
Done
Internet

Figure 6.22 IP Filtering – MAC Filtering List

Quality of Service

You can configure the Quality of Service to apply different priorities to traffic on the router.

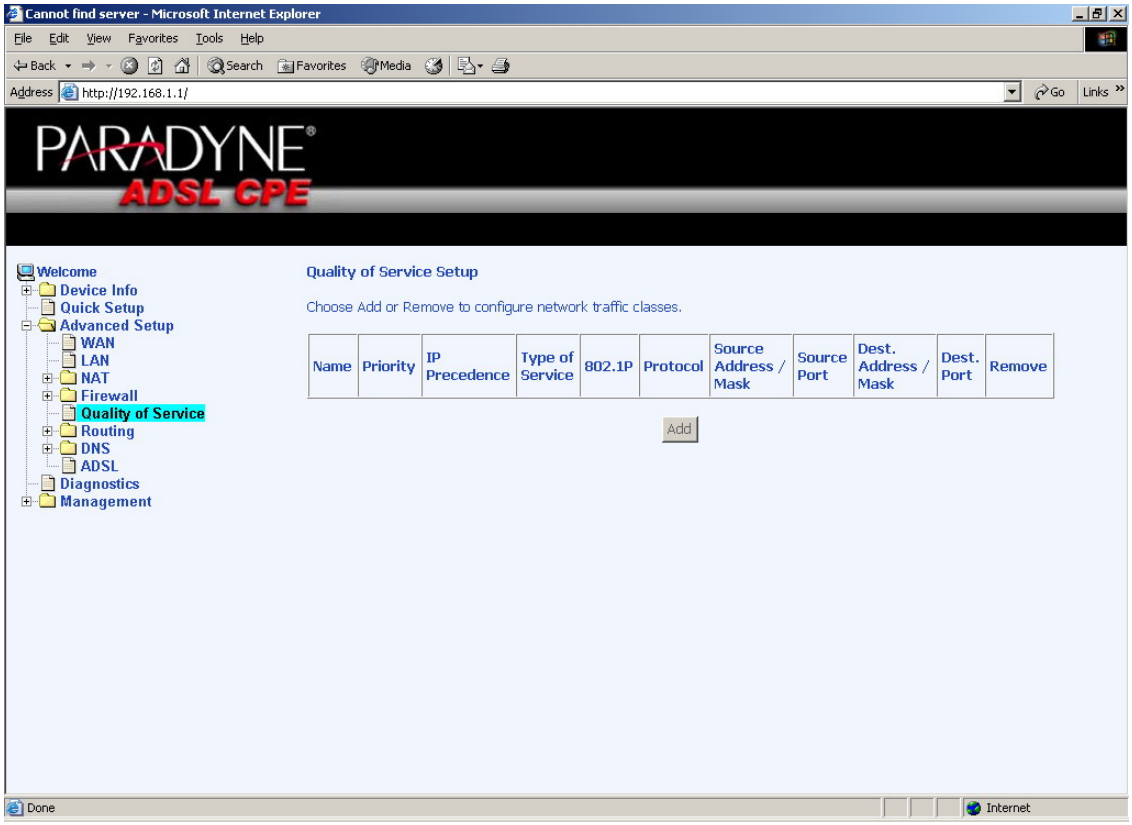


Figure 6.23 Quality of Service Setup Page

Click on Add and the Add Network Traffic Class Rule screen appears. Enter and select QoS parameters, then click on **Save/Apply**.

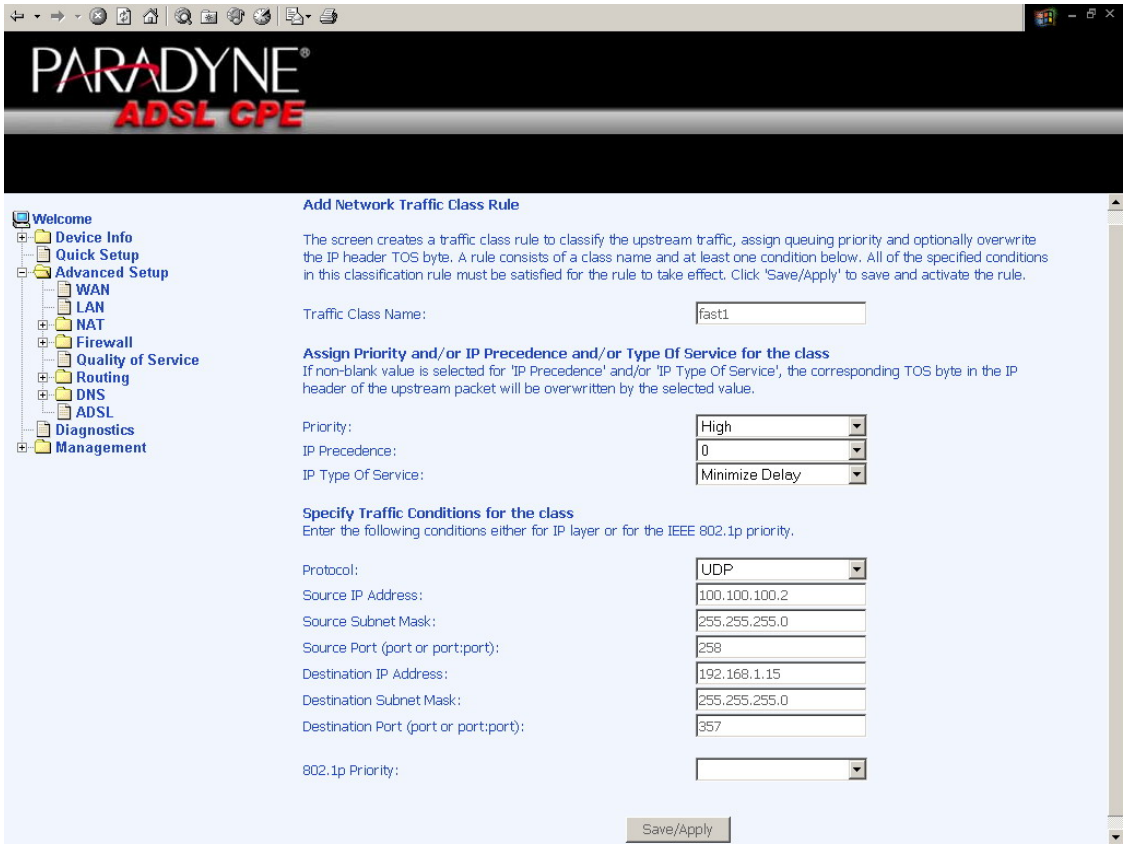

PARADYNE
ADSL CPE
Welcome
Device Info
Quick Setup
Advanced Setup
WAN
LAN
NAT
Firewall
Quality of Service
Routing
DNS
ADSL
Diagnostics
Management
Add Network Traffic Class Rule
The screen creates a traffic class rule to classify the upstream traffic, assign queuing priority and optionally overwrite the IP header TOS byte. A rule consists of a class name and at least one condition below. All of the specified conditions in this classification rule must be satisfied for the rule to take effect. Click 'Save/Apply' to save and activate the rule.
Traffic Class Name:
fast1
Assign Priority and/or IP Precedence and/or Type Of Service for the class
If non-blank value is selected for 'IP Precedence' and/or 'IP Type Of Service', the corresponding TOS byte in the IP header of the upstream packet will be overwritten by the selected value.
Priority:
High
IP Precedence:
0
IP Type Of Service:
Minimize Delay
Specify Traffic Conditions for the class
Enter the following conditions either for IP layer or for the IEEE 802.1p priority.
Protocol:
UDP
Source IP Address:
100.100.100.2
Source Subnet Mask:
255.255.255.0
Source Port (port or port:port):
258
Destination IP Address:
192.168.1.15
Destination Subnet Mask:
255.255.255.0
Destination Port (port or port:port):
357
802.1p Priority:
Save/Apply

Figure 6.24 Quality of Service Add Page

Note

802.1p Priority and TOS are mutually exclusive.

On this screen you can view and delete QoS settings.

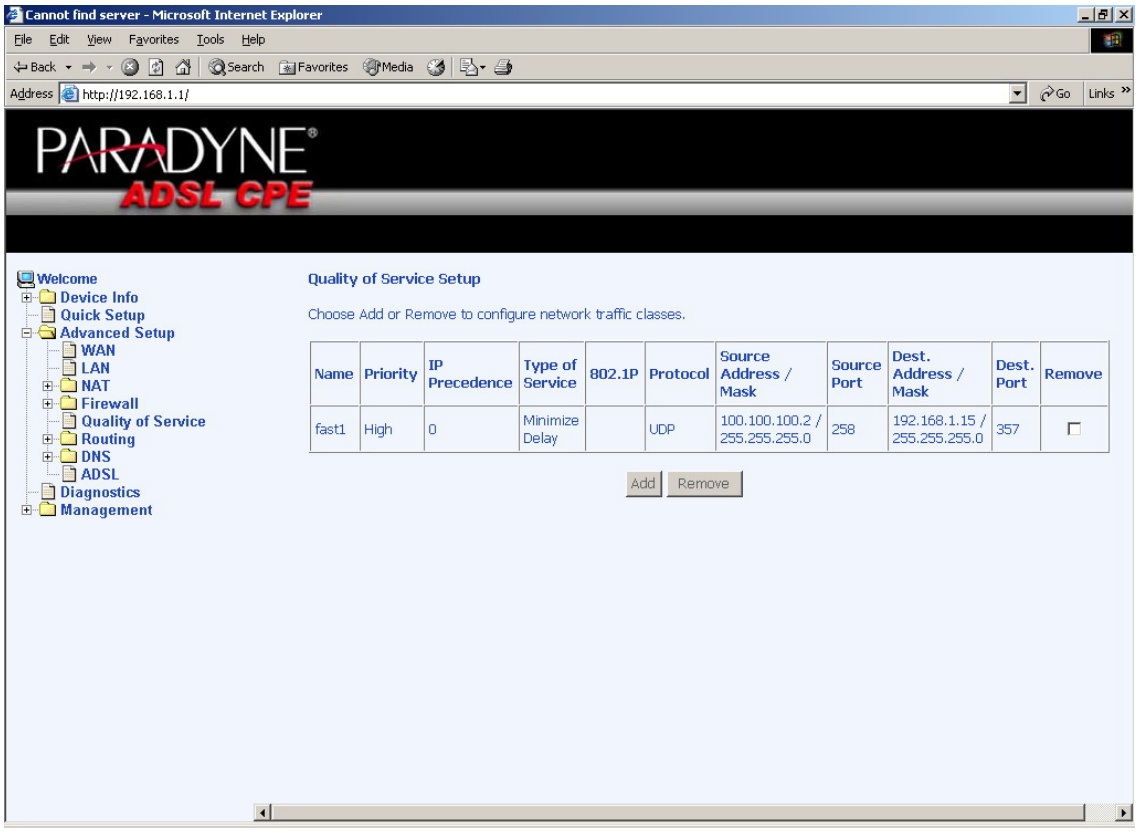


Figure 6.25 Quality of Service List

Routing

Default Gateway

You can change the Default Gateway on the Routing – Default Gateway screen.

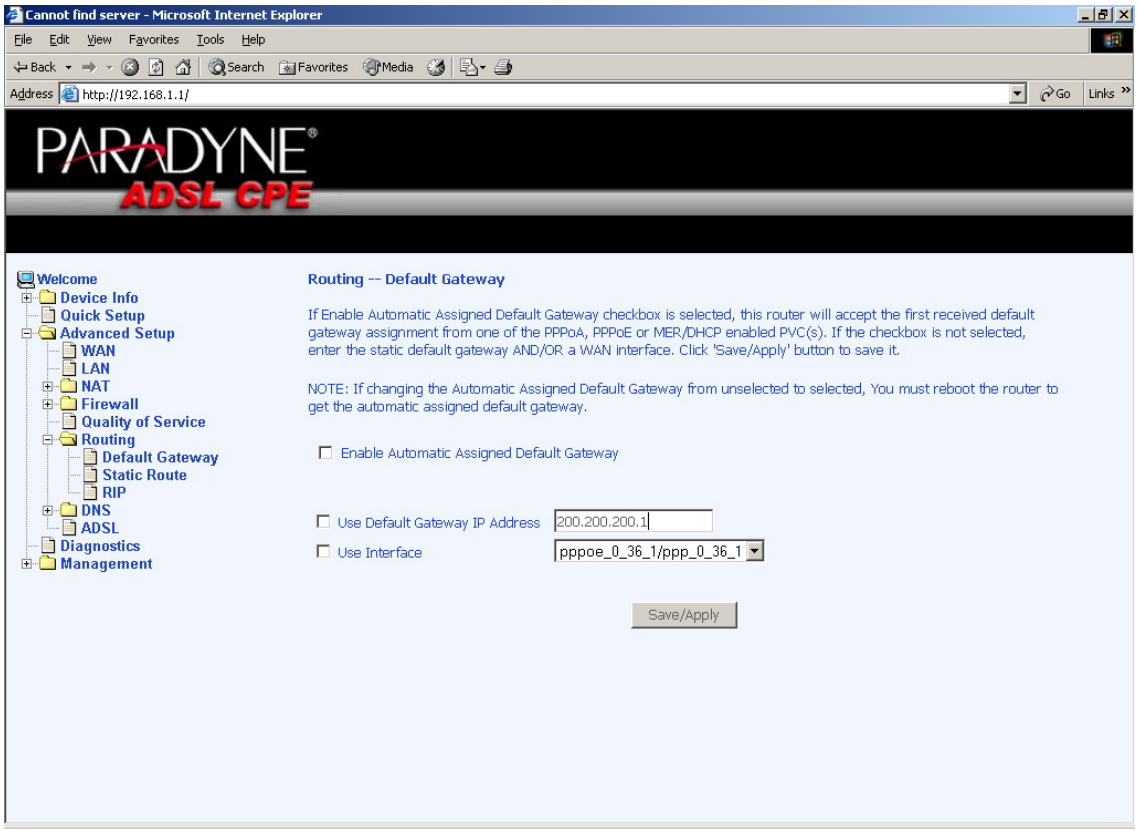

Cannot find server - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://192.168.1.1/
Go Links
PARADYNE
ADSL CPE
Welcome
Device Info
Quick Setup
Advanced Setup
WAN
LAN
NAT
Firewall
Quality of Service
Routing
Default Gateway
Static Route
RIP
DNS
ADSL
Diagnostics
Management
Routing -- Default Gateway
If Enable Automatic Assigned Default Gateway checkbox is selected, this router will accept the first received default gateway assignment from one of the PPPoA, PPPoE or MER/DHCP enabled PVC(s). If the checkbox is not selected, enter the static default gateway AND/OR a WAN interface. Click 'Save/Apply' button to save it.
NOTE: If changing the Automatic Assigned Default Gateway from unselected to selected, You must reboot the router to get the automatic assigned default gateway.
Enable Automatic Assigned Default Gateway
Use Default Gateway IP Address
200.200.200.1
Use Interface
pppoe_0_36_1/ppp_0_36_1
Save/Apply

Figure 6.26 Default Gateway Setup Page

Static Route

Use the Routing – Static Route screen to add a static route to the routing table.

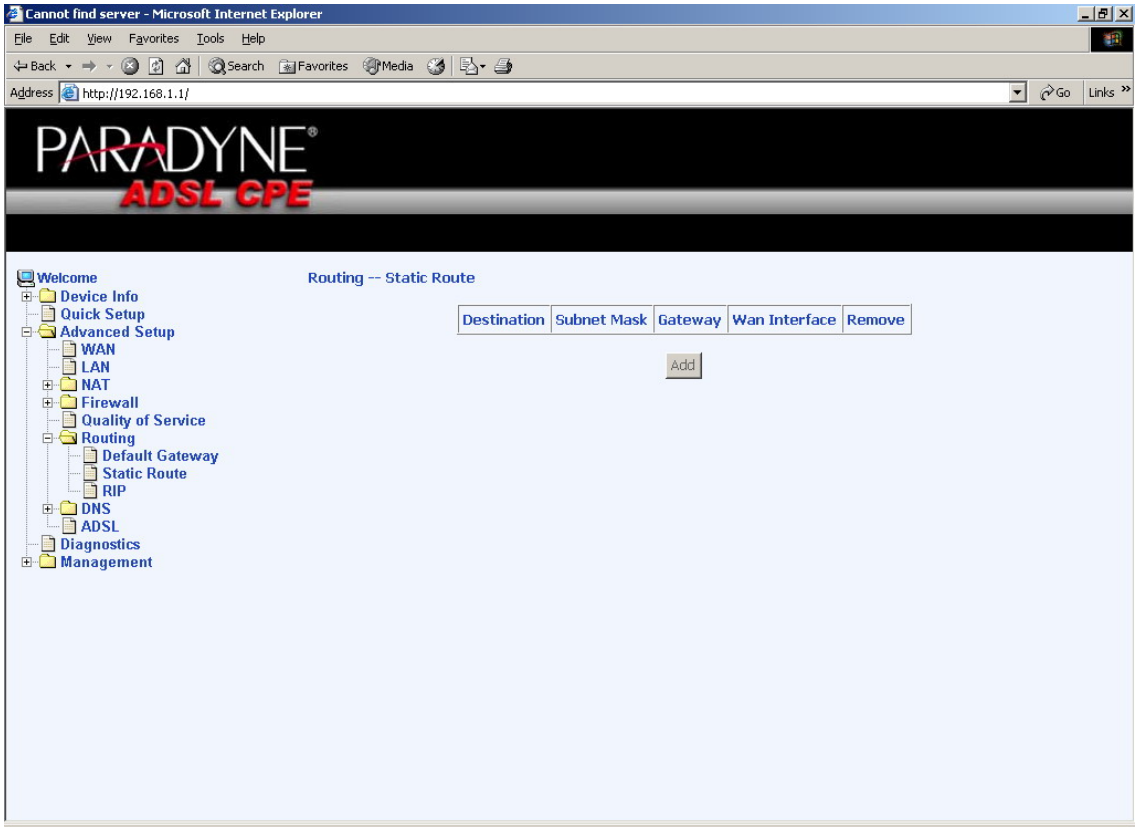


Figure 6.27 Static Route Setup Page

Enter the route information and click on **Save/Apply** to make it active. No reboot is required.

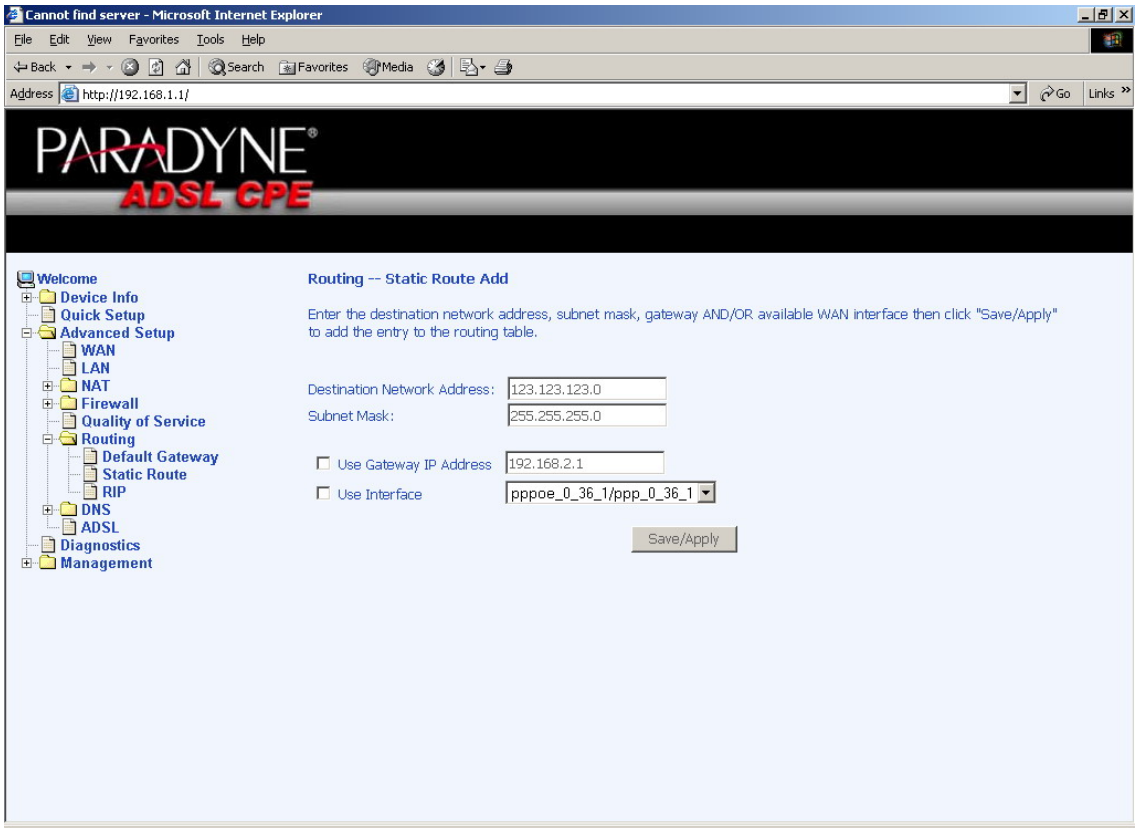


Figure 6.28 Static Route Add Page

RIP

If RIP is enabled, the router operation can be configured as Active or Passive.

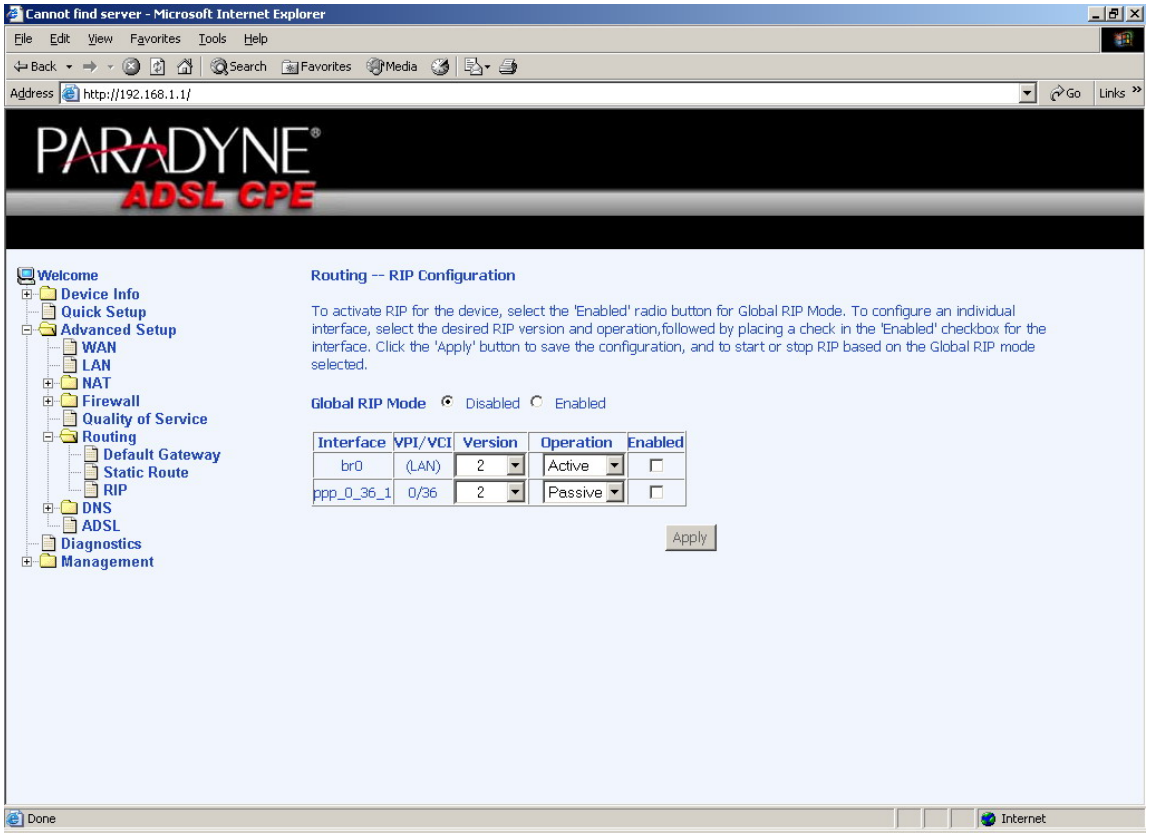

Cannot find server - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://192.168.1.1/
Go Links
PARADYNE
ADSL CPE
Welcome
Device Info
Quick Setup
Advanced Setup
WAN
LAN
NAT
Firewall
Quality of Service
Routing
Default Gateway
Static Route
RIP
DNS
ADSL
Diagnostics
Management
Routing -- RIP Configuration
To activate RIP for the device, select the 'Enabled' radio button for Global RIP Mode. To configure an individual interface, select the desired RIP version and operation,followed by placing a check in the 'Enabled' checkbox for the interface. Click the 'Apply' button to save the configuration, and to start or stop RIP based on the Global RIP mode selected.
Global RIP Mode Disabled Enabled
Interface VPI/VCI Version Operation Enabled
br0 (LAN) 2 Active
ppp_0_36_1 0/36 2 Passive
Apply
Done
Internet

Figure 6.29 RIP Setup Page

DNS

DNS Server

Use the DNS Server screen to request automatic assignment of a DNS or to specify a primary and secondary DNS.

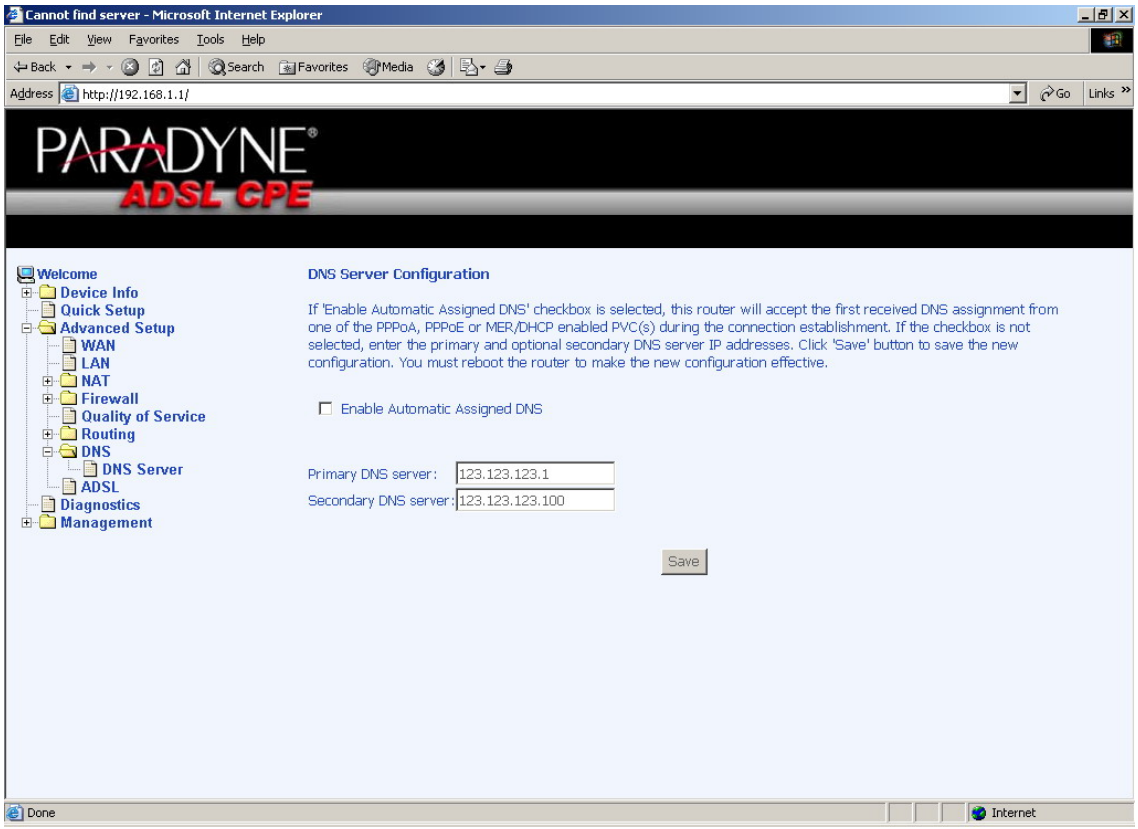

Cannot find server - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://192.168.1.1/
Go Links
PARADYNE
ADSL CPE
Welcome
Device Info
Quick Setup
Advanced Setup
WAN
LAN
NAT
Firewall
Quality of Service
Routing
DNS
DNS Server
ADSL
Diagnostics
Management
DNS Server Configuration
If 'Enable Automatic Assigned DNS' checkbox is selected, this router will accept the first received DNS assignment from one of the PPPoA, PPPoE or MER/DHCP enabled PVC(s) during the connection establishment. If the checkbox is not selected, enter the primary and optional secondary DNS server IP addresses. Click 'Save' button to save the new configuration. You must reboot the router to make the new configuration effective.
Enable Automatic Assigned DNS
Primary DNS server: 123.123.123.1
Secondary DNS server: 123.123.123.100
Save
Done
Internet

Figure 6.30 DNS Setup Page

ADSL

There are three major items in the ADSL settings:

Modulation Methods

Six modulation methods for different linking speed are supported by the 6211 ADSL router: G.Dmt Enabled, G.lite Enabled, T1.413 Enabled, ADSL Enabled, Annex L Enabled, and ADSL2+ Enabled. Set this value only as directed by your ISP.

Phone Line Pair

The 6211 ADSL router supports phone lines on pins 2 and 3 or pins 1 and 4 to connect your ADSL line. If your phone system uses pins 2 and 3, attach a normal RJ11 cable to the router and select "Inner pair" on the screen; if your phone system uses pins 1 and 4, attach the phone with the supplied RJ11 cable and select "Outer pair" on the screen.

Capability

Do not change these settings unless so directed by your ISP.

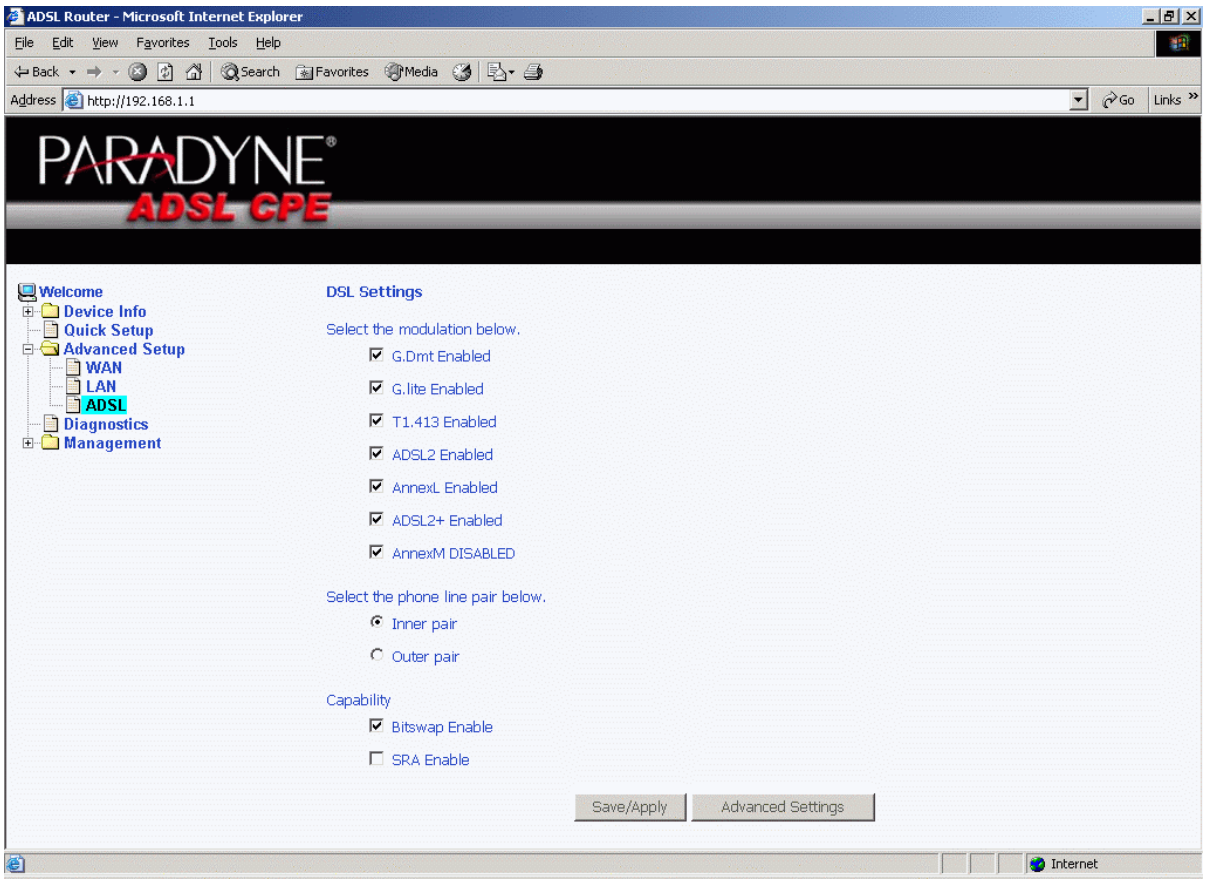


Figure 6-8 ADSL Setup

DSL Advanced Settings

Do not change the DSL Advanced Settings unless so directed by your ISP.

There are five test modes between the router and your ISP:

- Normal test: Puts the router in a test mode in which it only sends a Normal signal.
- Reverb test: Puts the router in a test mode in which it only sends a Reverb signal.
- Medley test: Puts the router in a test mode in which it only sends a Medley signal.
- No Retrain: In this mode the router will try to establish a connection as in normal mode, but once the connection is up it will not retrain if the signal is lost.
- L3: Puts the router into the L3 power state.

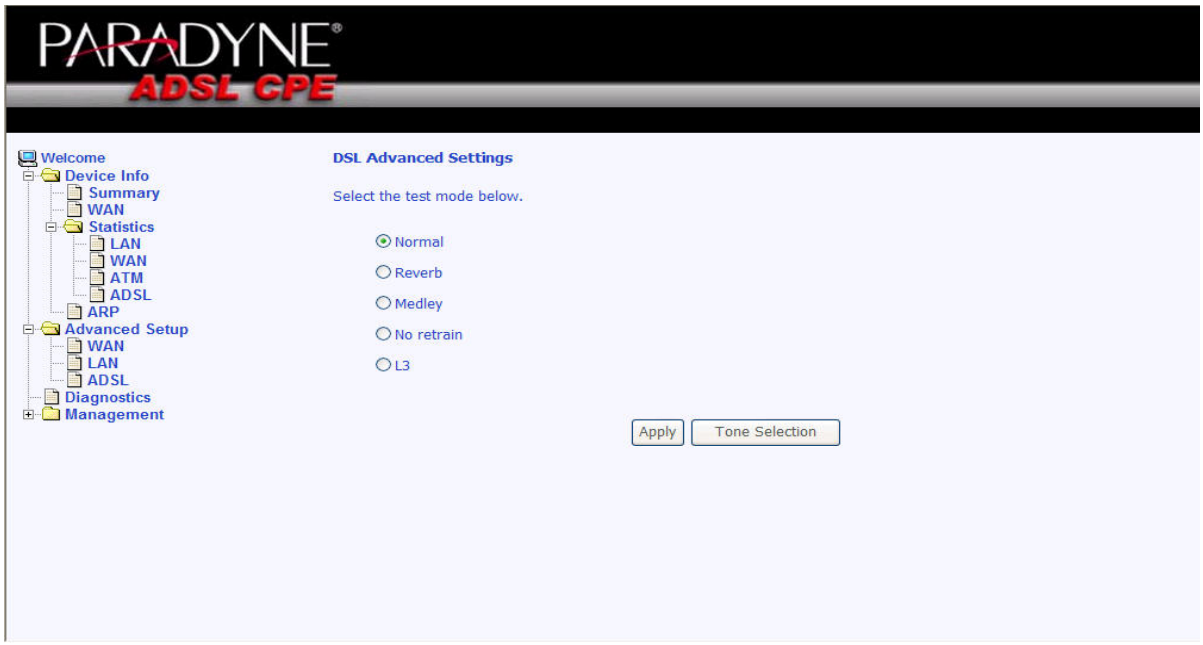


Figure 6-9 DSL Advanced Settings

Tone Selection

The frequency band of ADSL is split up into 256 separate tones, each spaced 4.3125 kHz apart. With each tone carrying separate data, the technique operates as if 256 separate modems were running in parallel. The tone range is from 0 to 31 for upstream and from 32 to 255 for downstream.

Do not change these settings unless so directed by your ISP.

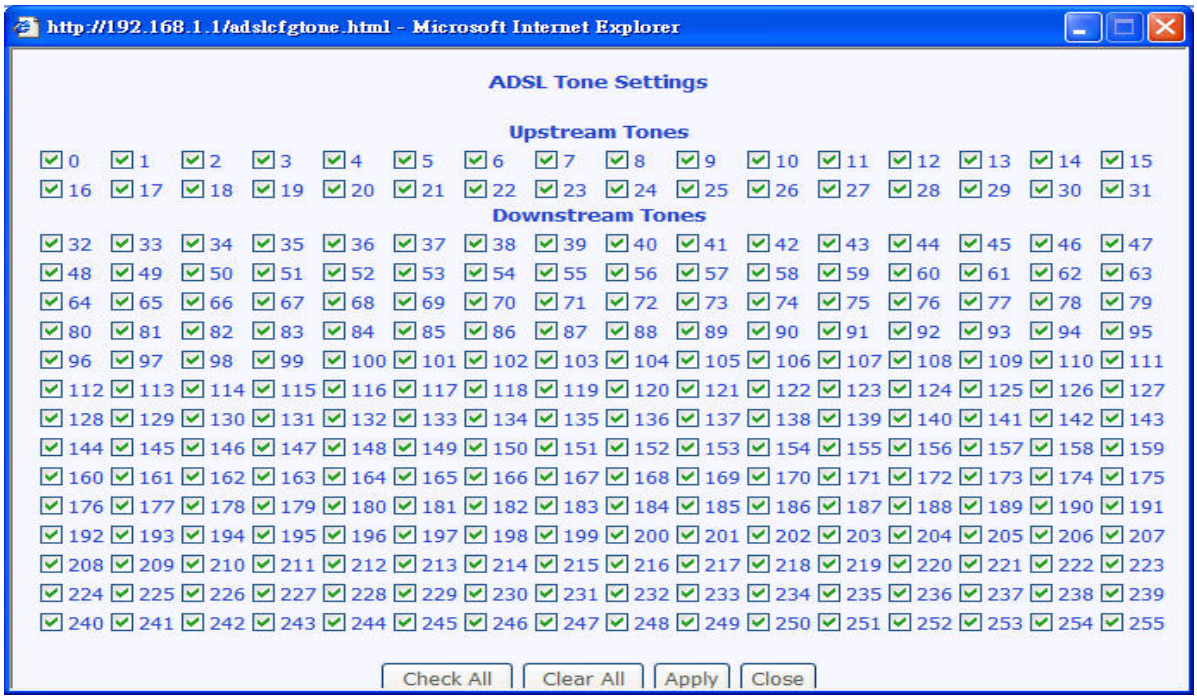


Figure 6-10 Tone Settings

7 Diagnostics

Your router is capable of testing your DSL connection. The individual tests are listed below. If a test displays a failure status, click on "Test" at the bottom of this page to make sure the failure status is consistent. If the test result continues to show a failure, click on "Help" and follow the troubleshooting procedures.

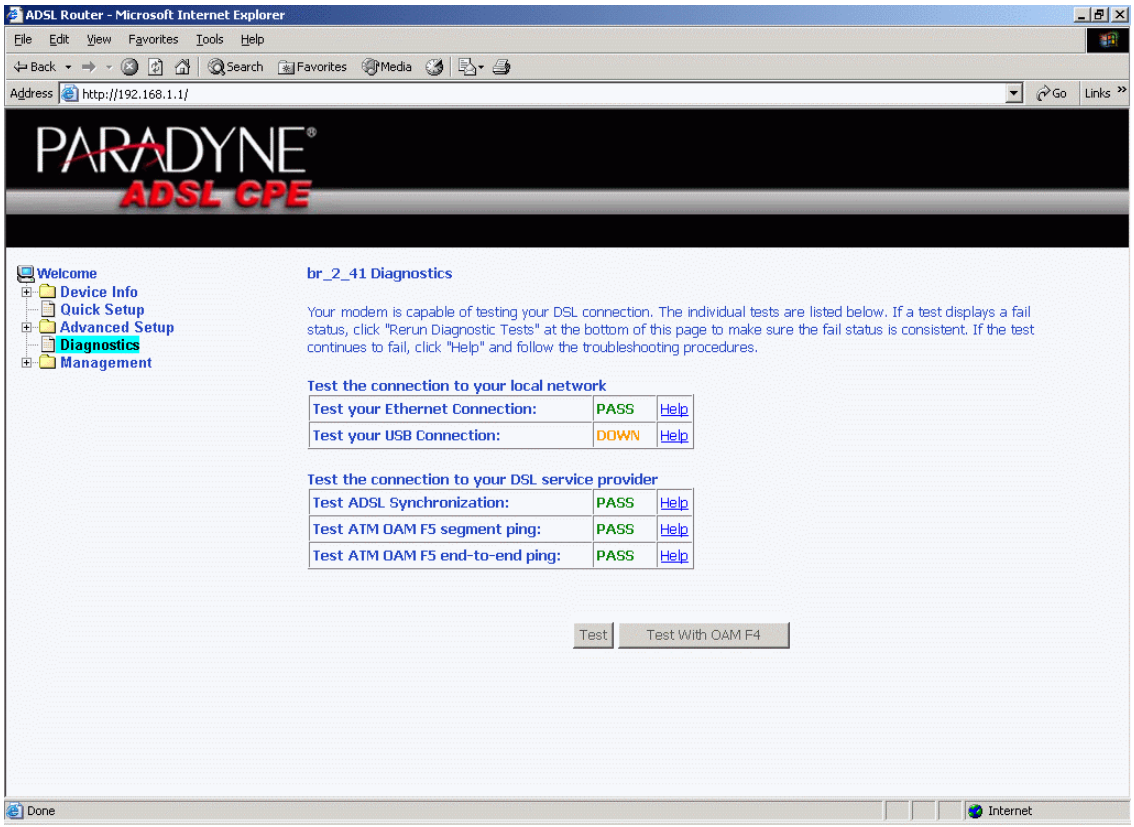

ADSL Router - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://192.168.1.1/
Go Links
PARADYNE
ADSL CPE
Welcome
Device Info
Quick Setup
Advanced Setup
Diagnostics
Management
br_2_41 Diagnostics
Your modem is capable of testing your DSL connection. The individual tests are listed below. If a test displays a fail status, click "Rerun Diagnostic Tests" at the bottom of this page to make sure the fail status is consistent. If the test continues to fail, click "Help" and follow the troubleshooting procedures.
Test the connection to your local network
Test your Ethernet Connection: PASS Help
Test your USB Connection: DOWN Help
Test the connection to your DSL service provider
Test ADSL Synchronization: PASS Help
Test ATM OAM F5 segment ping: PASS Help
Test ATM OAM F5 end-to-end ping: PASS Help
Test
Test With OAM F4
Done
Internet

Figure 7-1 Diagnostics

8 Management

Settings

The configuration of your router can be backed up to a file, and also can be restored from a file. You can also restore the router to its factory default configuration.

Backup Setting

To back up your settings, select *Management→Settings→Backup Settings*.

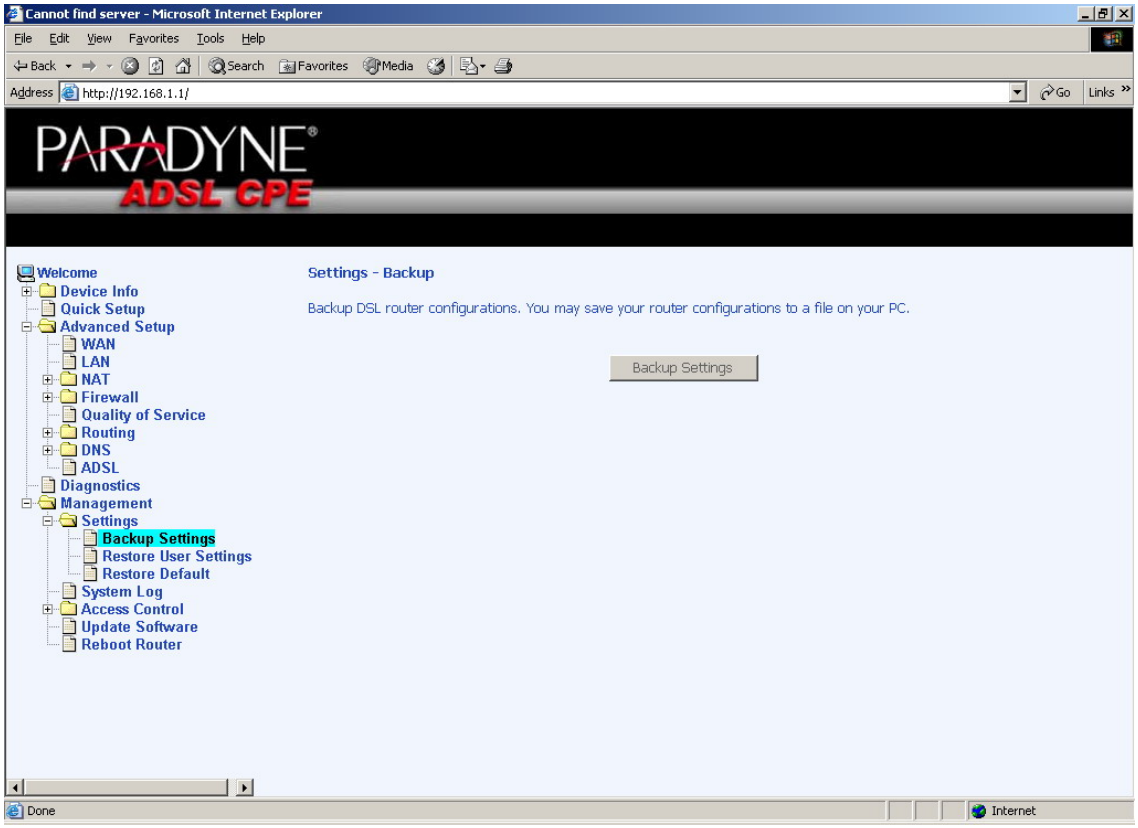


Figure 8.1 Backup Settings Page

Verify that you would like to save the file.

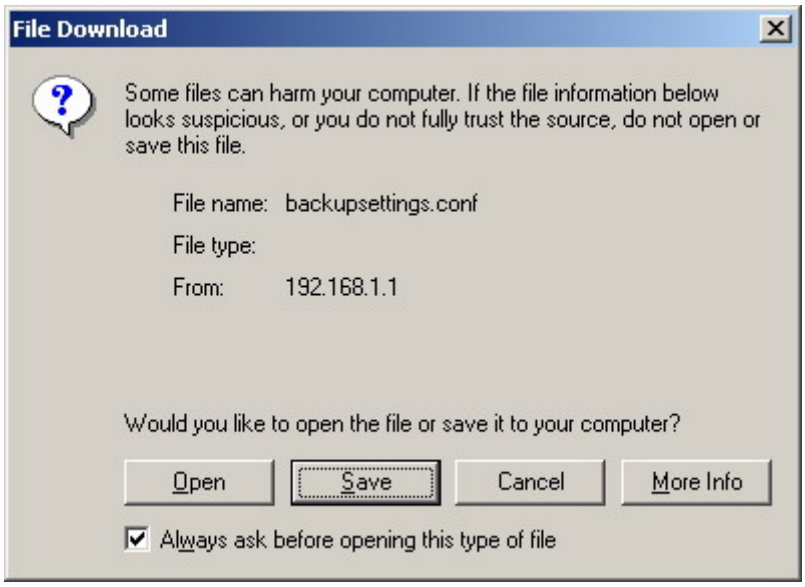

File Download
Some files can harm your computer. If the file information below looks suspicious, or you do not fully trust the source, do not open or save this file.
File name: backupsettings.conf
File type:
From: 192.168.1.1
Would you like to open the file or save it to your computer?
Open
Save
Cancel
More Info
Always ask before opening this type of file

Figure 8.2 Backup Settings Dialog

Select the location where you want to save the file.

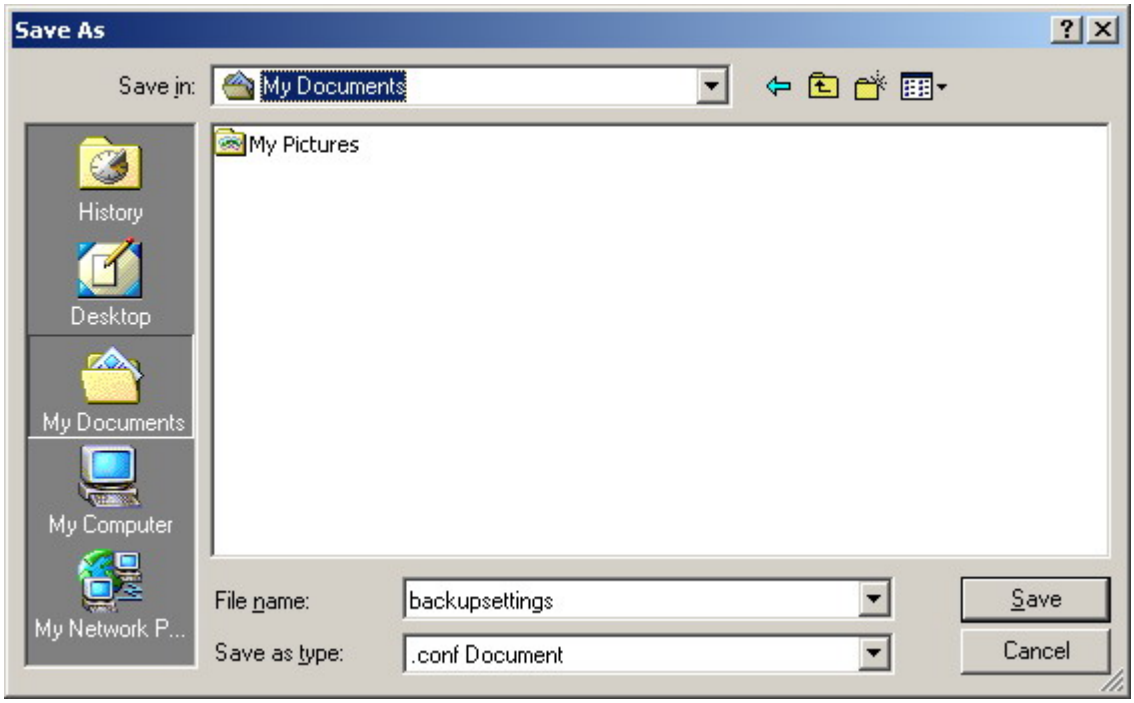


Figure 8.3 Backup Settings File Location

Restore User Settings

To restore saved settings, select *Management→Settings→Restore User Settings*.

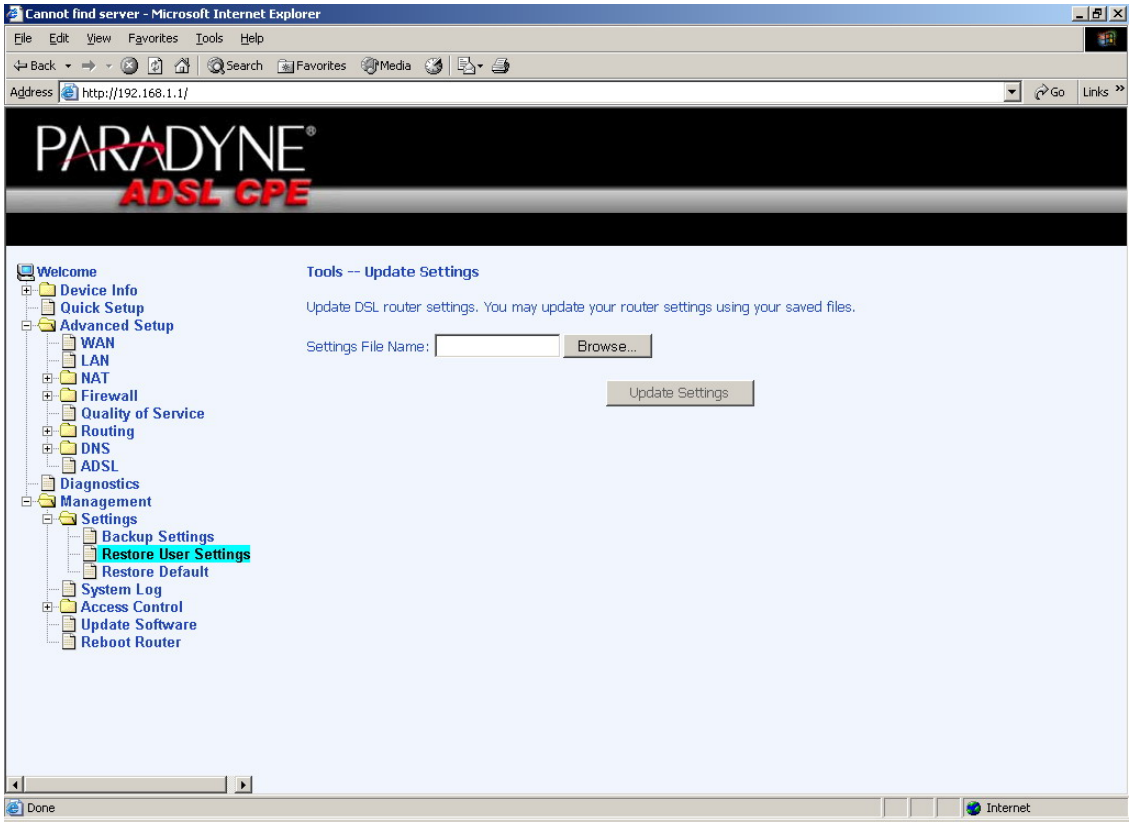


Figure 8.4 Restore Settings Page

Select the backup file you want to restore and click on **Update Settings**.

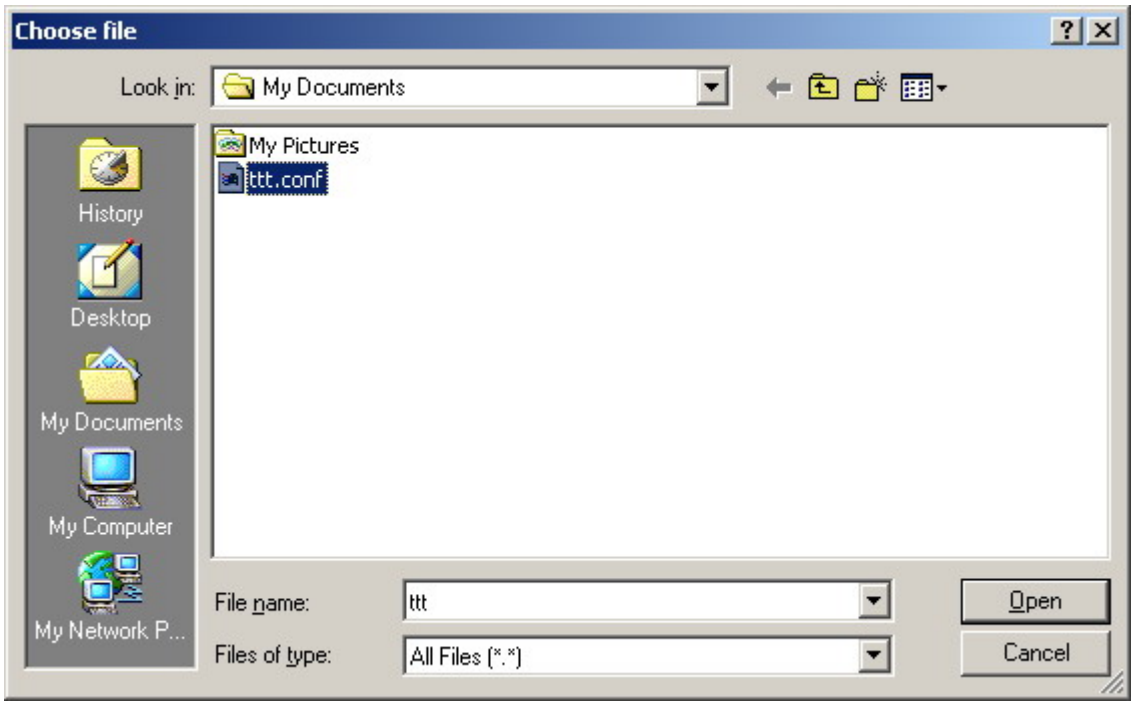


Figure 8.5 Restore Setting Location Page

The router will restore settings and reboot to activate the restored settings.

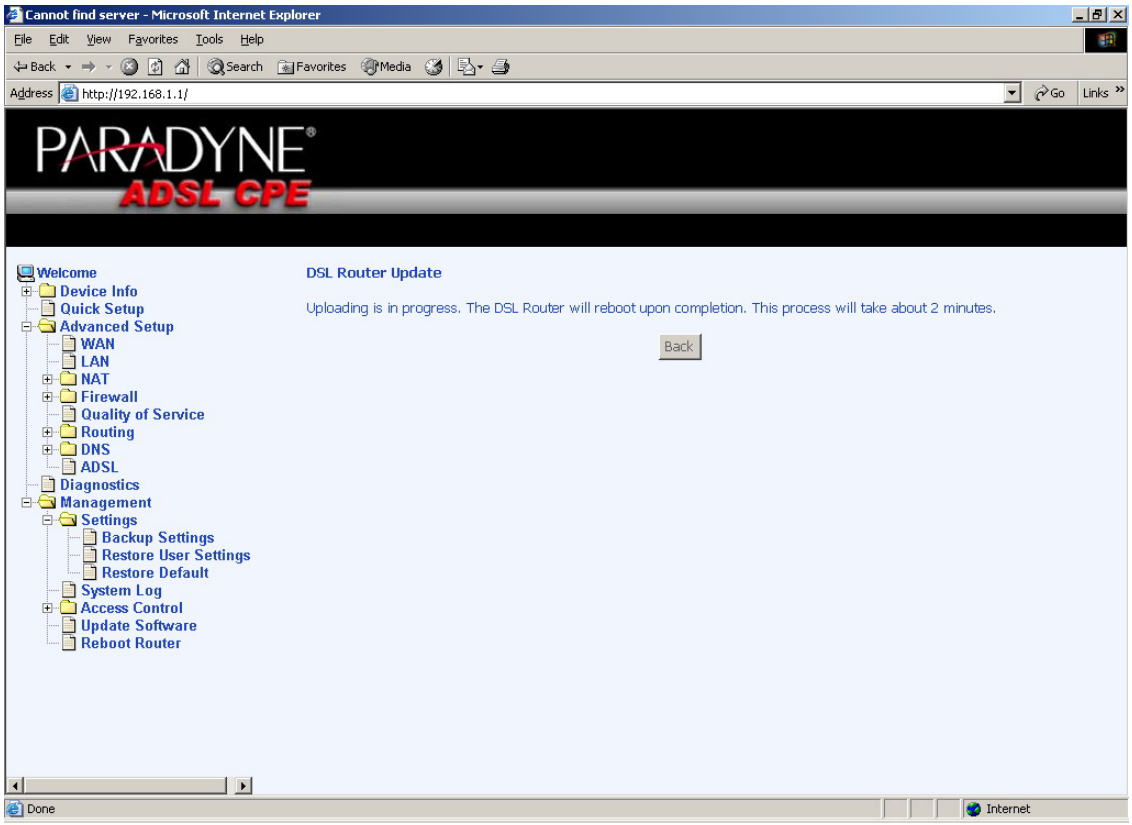


Figure 8.6 Restore Settings Reboot Page

Restore Default

Restore Default will erase all current settings and restore the router to factory default settings.

To restore the router to factory default settings, select *Management→Settings→Restore Default.*

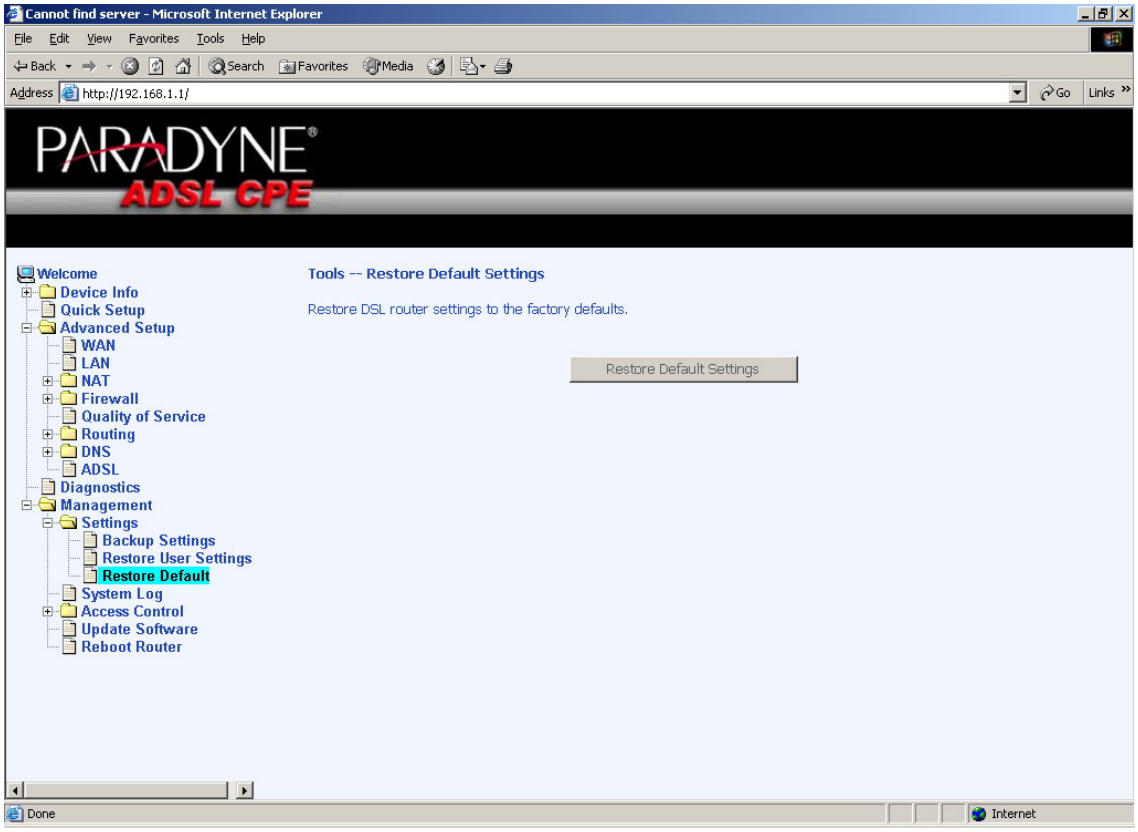


Figure 8.7 Restore Default Page

Reply OK to the confirmation dialog.

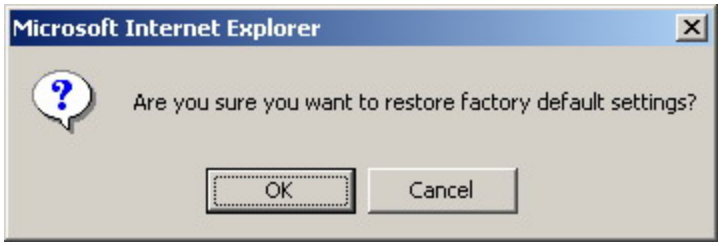


Figure 8.8 Restore Default Confirmation

The router will restore the default settings and reboot.

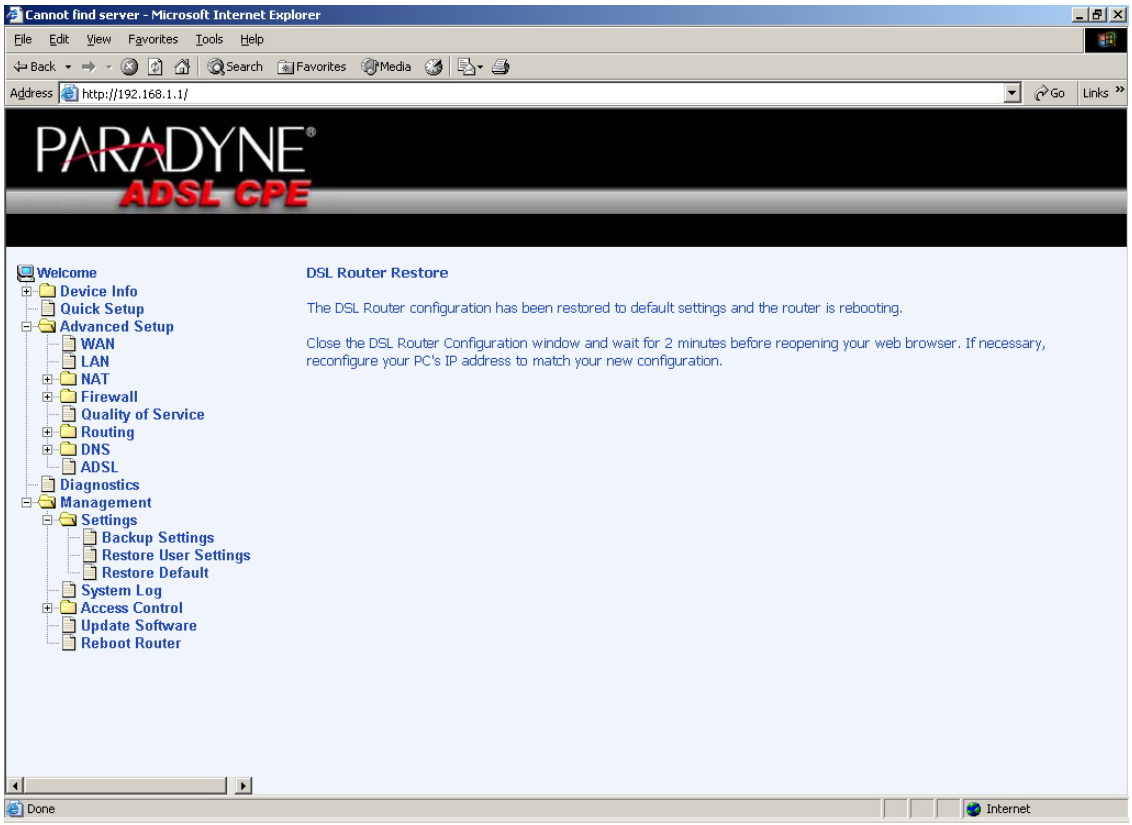


Figure 8.9 Restore Default Reboot Page

System Log

The System Log dialog allows you to view the System Log and configure the System Log options.

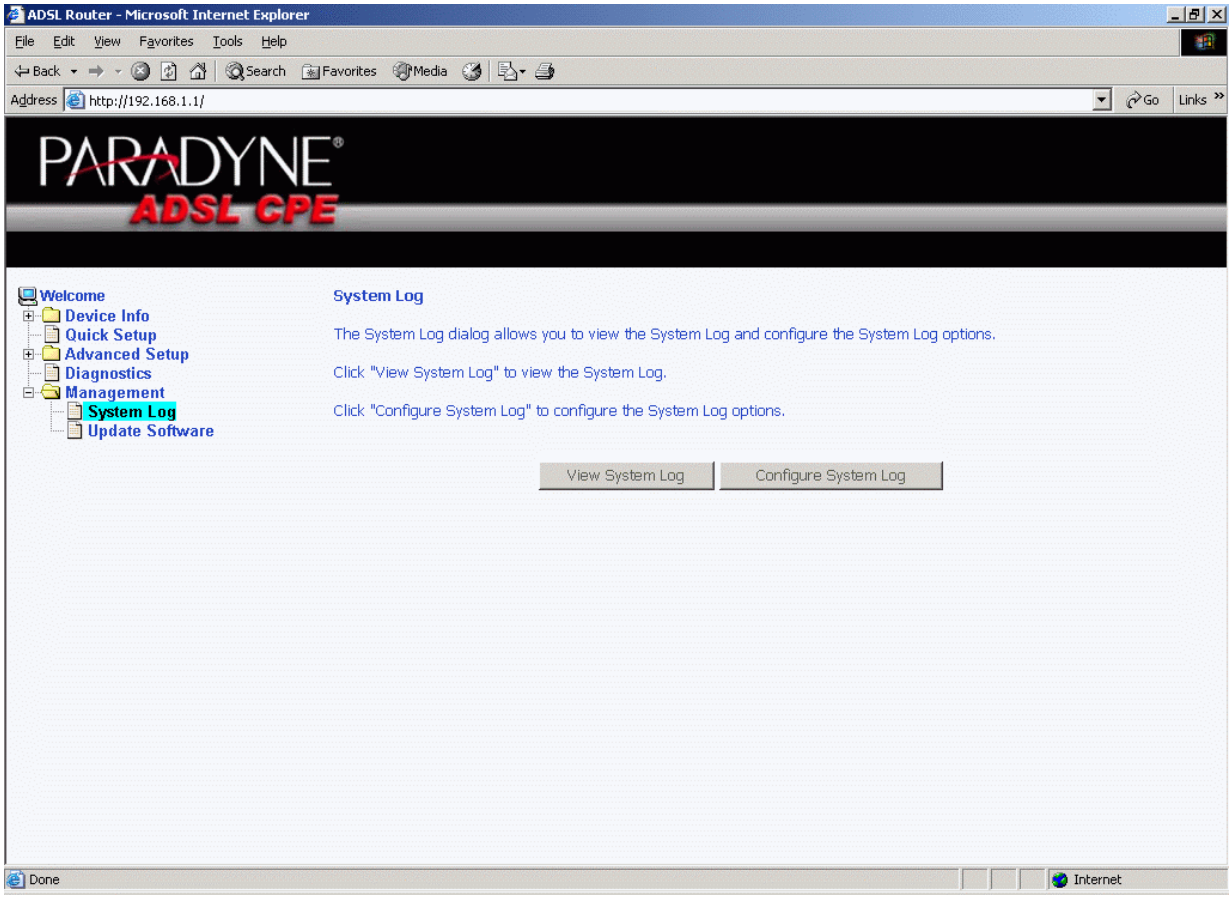
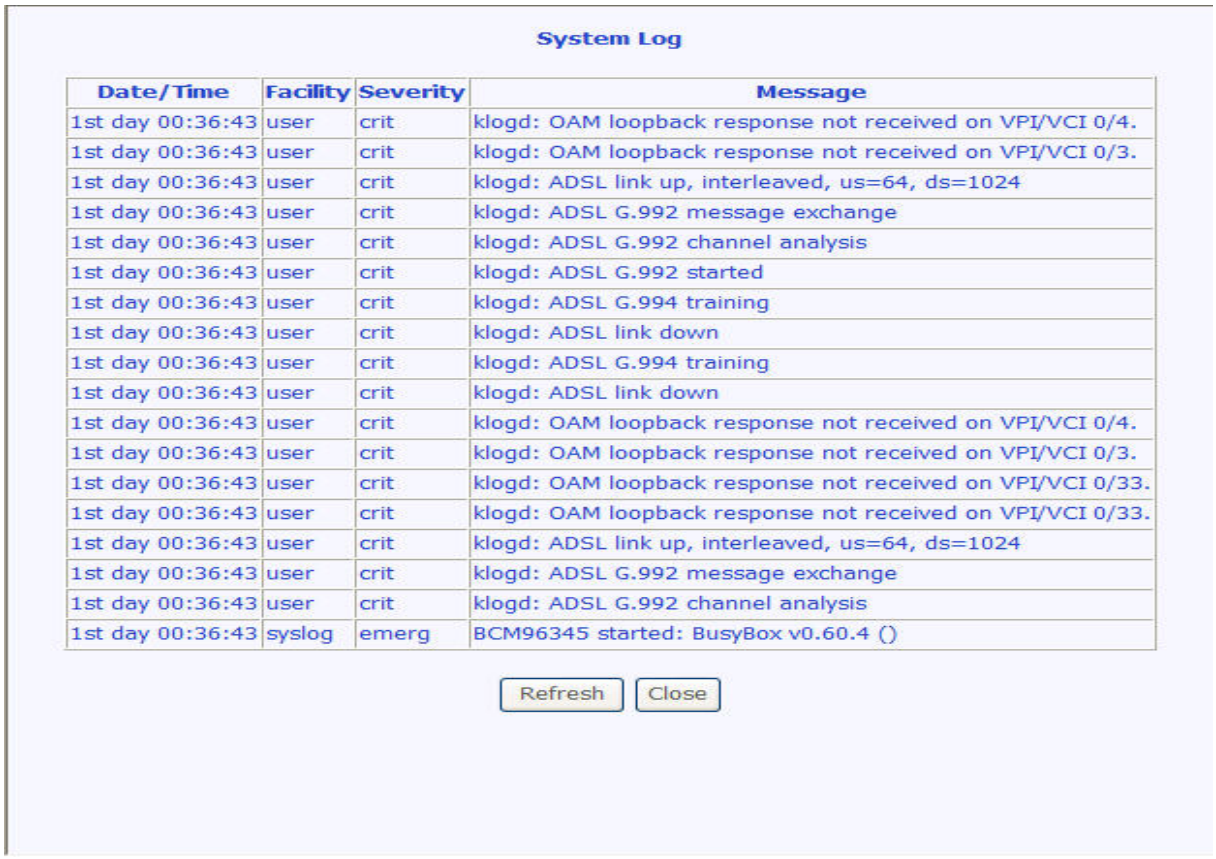


Figure 8-1 System Log

View System Log

Click on the "View System Log" button to check the log file.



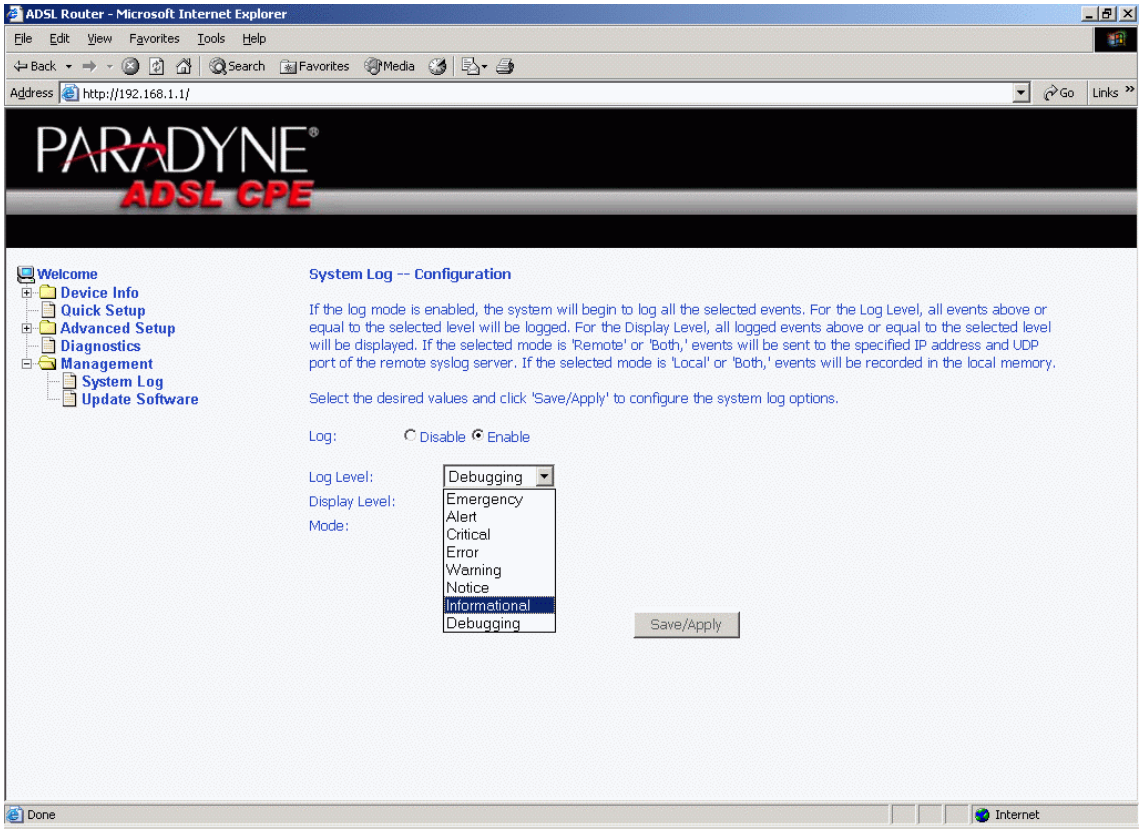
System Log

Date/Time	Facility	Severity	Message
1st day 00:36:43	user	crit	klogd: OAM loopback response not received on VPI/VCI 0/4.
1st day 00:36:43	user	crit	klogd: OAM loopback response not received on VPI/VCI 0/3.
1st day 00:36:43	user	crit	klogd: ADSL link up, interleaved, us=64, ds=1024
1st day 00:36:43	user	crit	klogd: ADSL G.992 message exchange
1st day 00:36:43	user	crit	klogd: ADSL G.992 channel analysis
1st day 00:36:43	user	crit	klogd: ADSL G.992 started
1st day 00:36:43	user	crit	klogd: ADSL G.994 training
1st day 00:36:43	user	crit	klogd: ADSL link down
1st day 00:36:43	user	crit	klogd: ADSL G.994 training
1st day 00:36:43	user	crit	klogd: ADSL link down
1st day 00:36:43	user	crit	klogd: OAM loopback response not received on VPI/VCI 0/4.
1st day 00:36:43	user	crit	klogd: OAM loopback response not received on VPI/VCI 0/3.
1st day 00:36:43	user	crit	klogd: OAM loopback response not received on VPI/VCI 0/33.
1st day 00:36:43	user	crit	klogd: OAM loopback response not received on VPI/VCI 0/33.
1st day 00:36:43	user	crit	klogd: ADSL link up, interleaved, us=64, ds=1024
1st day 00:36:43	user	crit	klogd: ADSL G.992 message exchange
1st day 00:36:43	user	crit	klogd: ADSL G.992 channel analysis
1st day 00:36:43	syslog	emerg	BCM96345 started: BusyBox v0.60.4 ()

Refresh Close

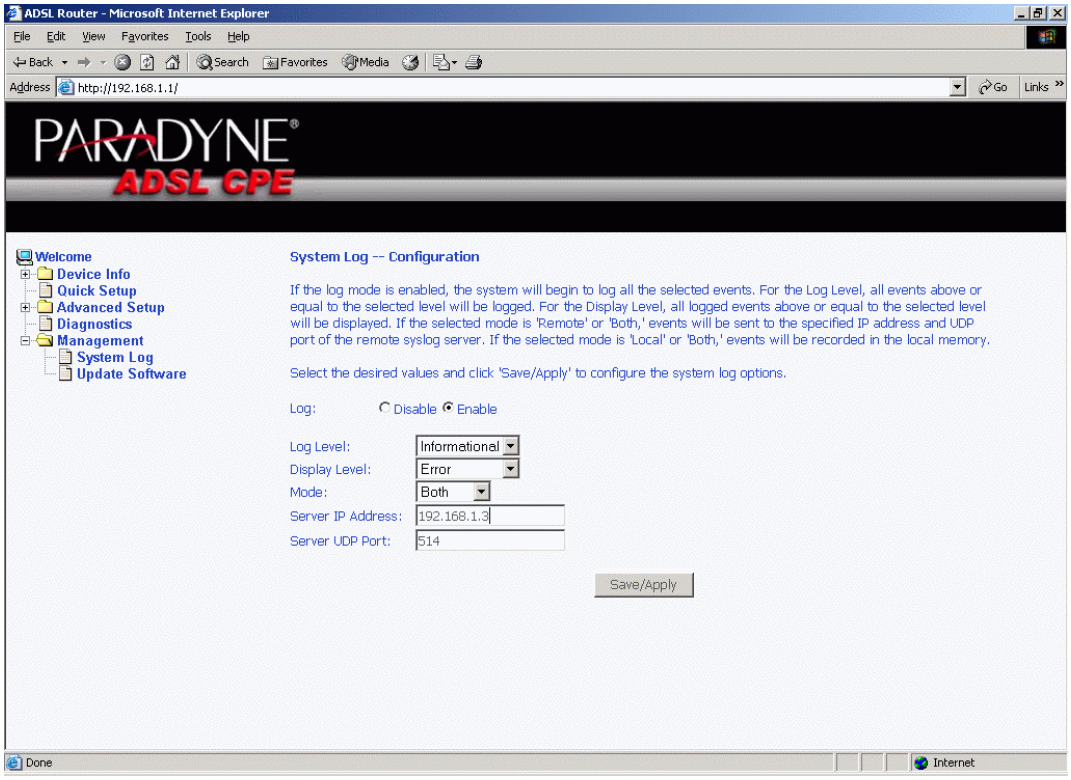
Configure System Log

If the log is enabled, the system will log selected events: Emergency, Alert, Critical, Error, Warning, Notice, Informational, and Debugging. All events above or equal to the selected log level will be logged and displayed.


ADSL Router - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://192.168.1.1/
Go Links
PARADYNE
ADSL CPE
Welcome
Device Info
Quick Setup
Advanced Setup
Diagnostics
Management
System Log
Update Software
System Log -- Configuration
If the log mode is enabled, the system will begin to log all the selected events. For the Log Level, all events above or equal to the selected level will be logged. For the Display Level, all logged events above or equal to the selected level will be displayed. If the selected mode is 'Remote' or 'Both,' events will be sent to the specified IP address and UDP port of the remote syslog server. If the selected mode is 'Local' or 'Both,' events will be recorded in the local memory.
Select the desired values and click 'Save/Apply' to configure the system log options.
Log: Disable Enable
Log Level:
Display Level:
Mode:
Debugging
Emergency
Alert
Critical
Error
Warning
Notice
Informational
Debugging
Save/Apply
Done
Internet

If the selected mode is "Remote" or "Both", events will be sent to the specified IP address and UDP port of a remote system log server. If the selected mode is "Local" or "Both", events will be recorded in the local memory.

Select the desired values and click on the "**Save/Apply**" button to configure the system log options.


ADSL Router - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://192.168.1.1/
Go Links
PARADYNE
ADSL CPE
Welcome
Device Info
Quick Setup
Advanced Setup
Diagnostics
Management
System Log
Update Software
System Log -- Configuration
If the log mode is enabled, the system will begin to log all the selected events. For the Log Level, all events above or equal to the selected level will be logged. For the Display Level, all logged events above or equal to the selected level will be displayed. If the selected mode is 'Remote' or 'Both,' events will be sent to the specified IP address and UDP port of the remote syslog server. If the selected mode is 'Local' or 'Both,' events will be recorded in the local memory.
Select the desired values and click 'Save/Apply' to configure the system log options.
Log: Disable Enable
Log Level: Informational
Display Level: Error
Mode: Both
Server IP Address: 192.168.1.3
Server UDP Port: 514
Save/Apply
Done
Internet

Access Control

Services

You can enable or disable some services of your router by LAN or WAN. If no WAN connection is defined, only the LAN side can be configured.

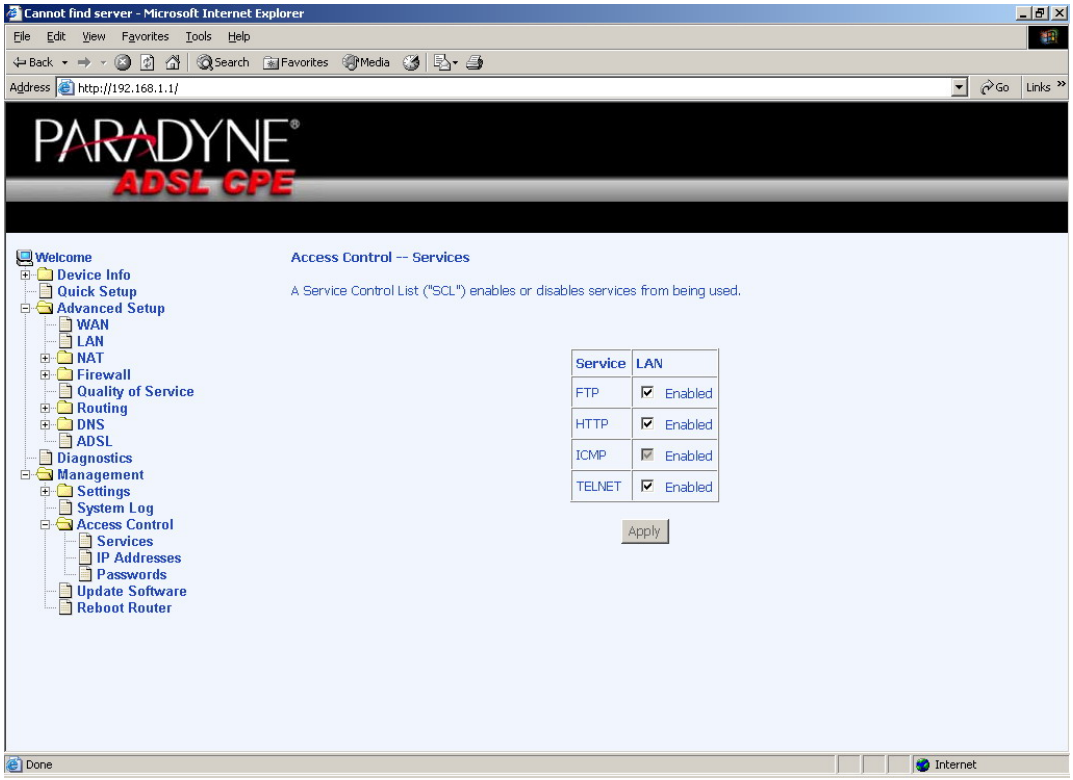


Figure 8.14 Service Setup Page

If a WAN connection is defined, services of both the LAN side and WAN side can be configured.

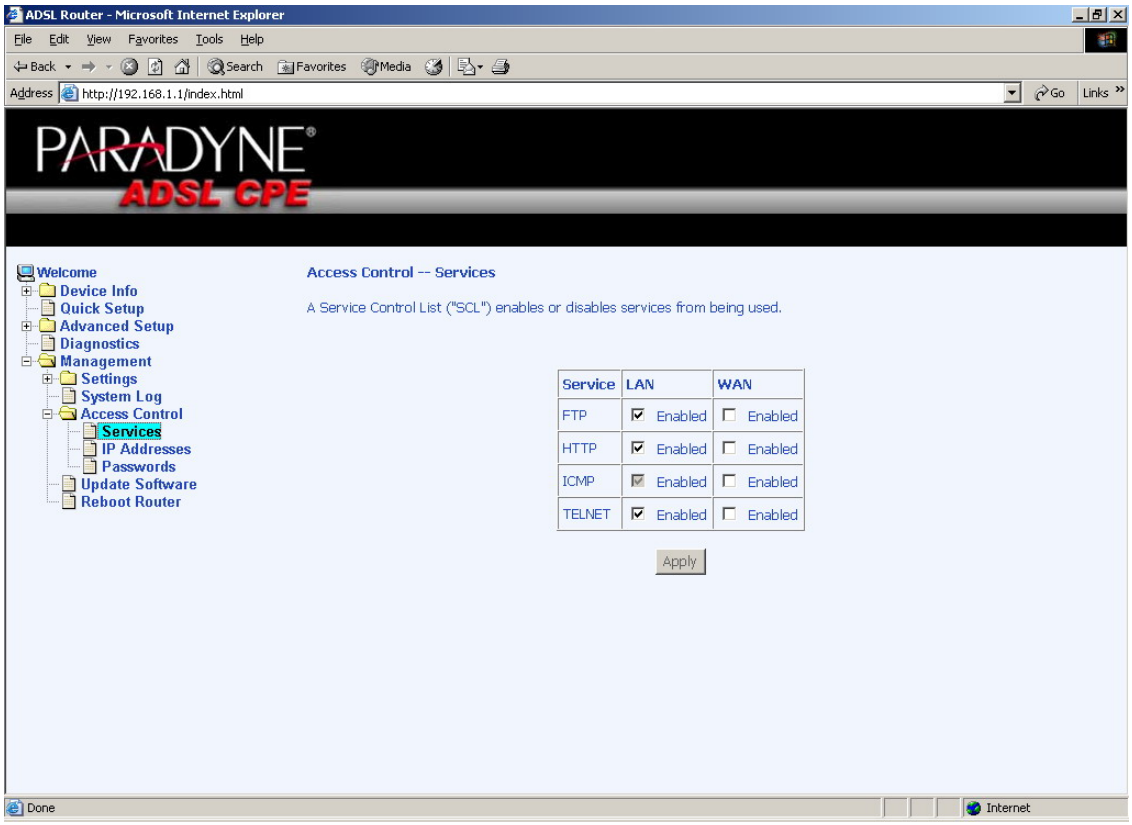


Figure 8.15 Service Setup with WAN Page

IP Addresses

Web access to the router can be limited when Access Control Mode is enabled. The IP addresses of allowed hosts can be added using *Access Control→IP Address*.

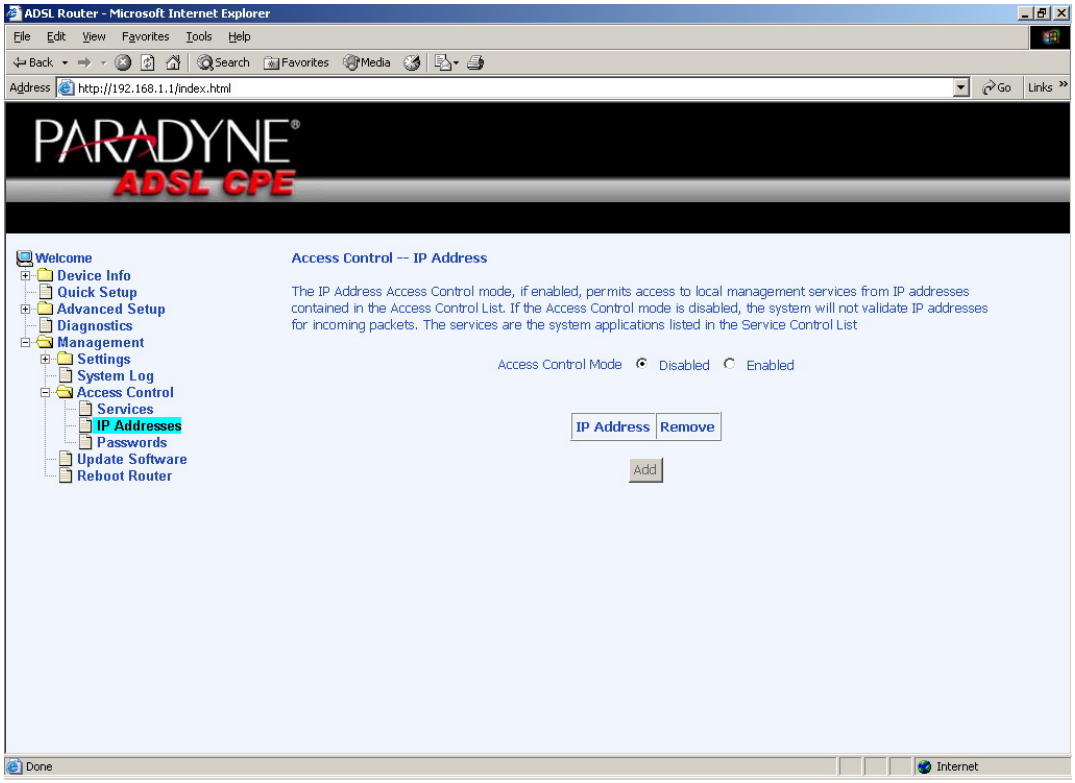

ADSL Router - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://192.168.1.1/index.html
Go Links
PARADYNE
ADSL CPE
Welcome
Device Info
Quick Setup
Advanced Setup
Diagnostics
Management
Settings
System Log
Access Control
Services
IP Addresses
Passwords
Update Software
Reboot Router
Access Control -- IP Address
The IP Address Access Control mode, if enabled, permits access to local management services from IP addresses contained in the Access Control List. If the Access Control mode is disabled, the system will not validate IP addresses for incoming packets. The services are the system applications listed in the Service Control List
Access Control Mode Disabled Enabled
IP Address Remove
Add
Done
Internet

Figure 8.16 Access Control – IP Address Setup Page

First, add the IP address to the IP address list.

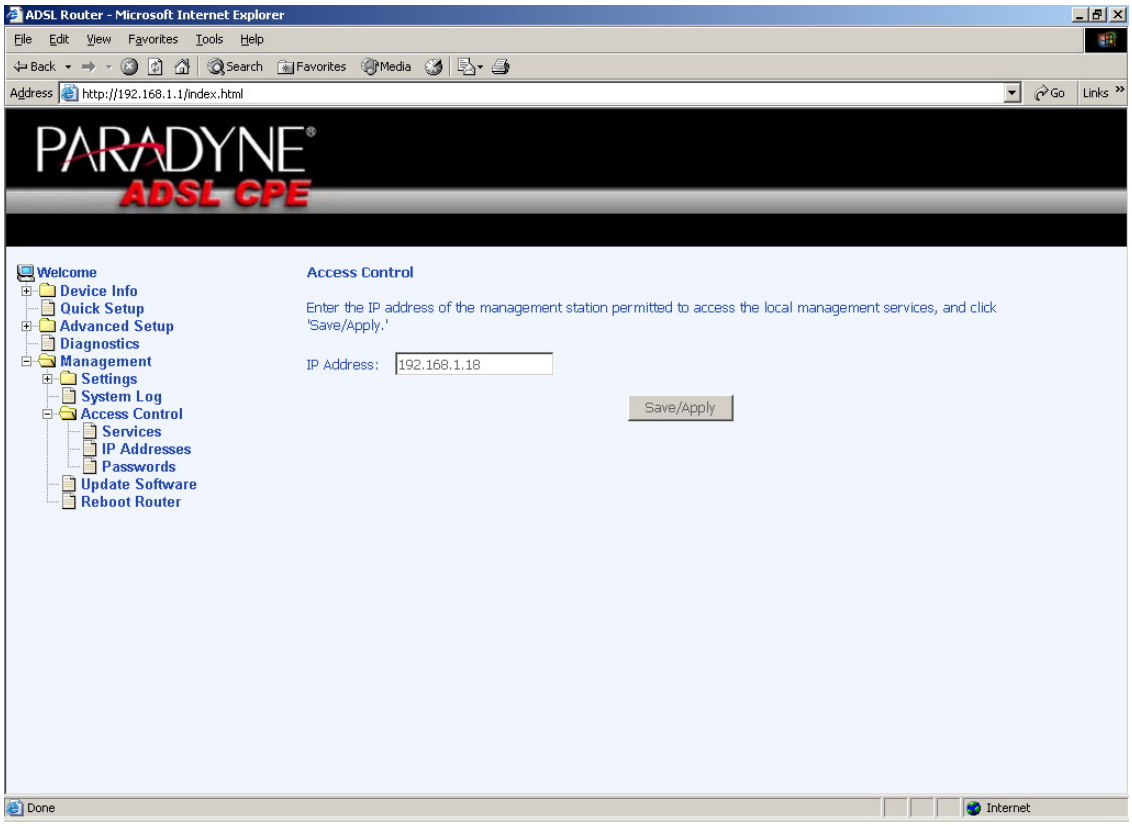


Figure 8.17 Access Control – IP Address Add Page

Then select "**Enabled**" to enable Access Control Mode.

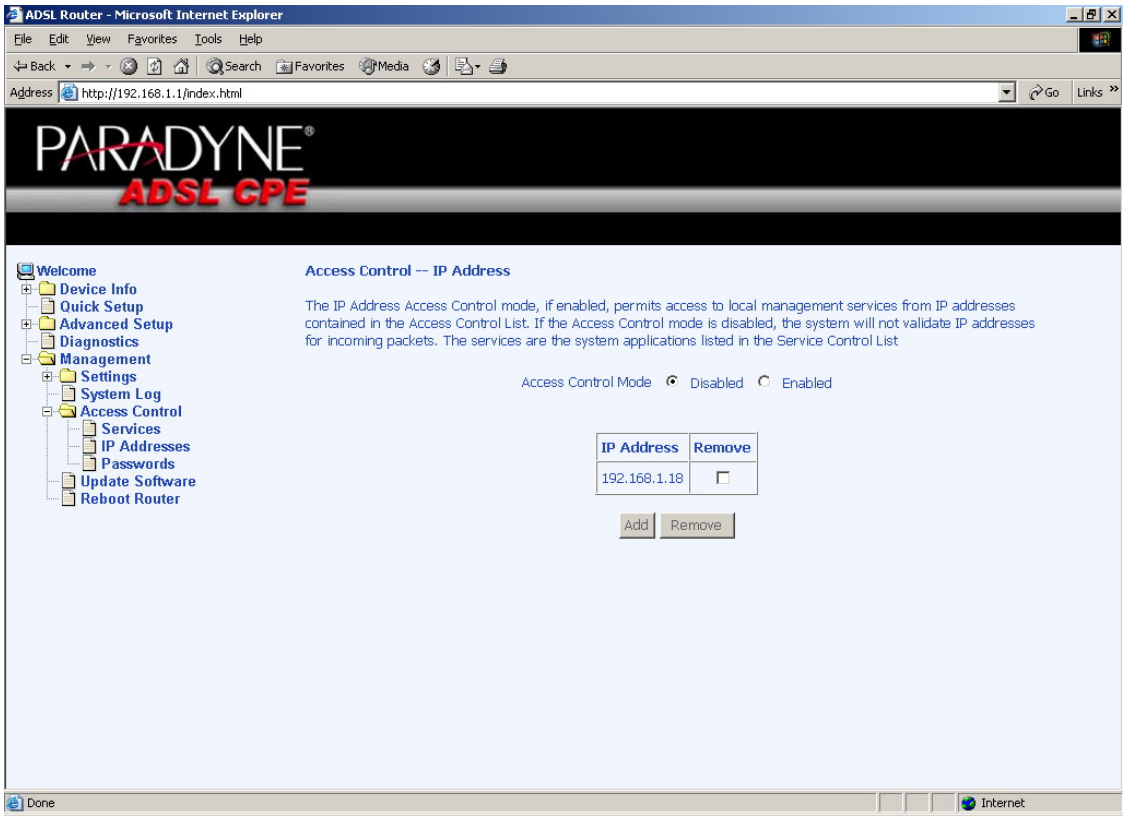

ADSL Router - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://192.168.1.1/index.html
Go Links
PARADYNE
ADSL CPE
Welcome
Device Info
Quick Setup
Advanced Setup
Diagnostics
Management
Settings
System Log
Access Control
Services
IP Addresses
Passwords
Update Software
Reboot Router
Access Control -- IP Address
The IP Address Access Control mode, if enabled, permits access to local management services from IP addresses contained in the Access Control List. If the Access Control mode is disabled, the system will not validate IP addresses for incoming packets. The services are the system applications listed in the Service Control List
Access Control Mode Disabled Enabled
IP Address Remove
192.168.1.18
Add Remove
Done
Internet

Figure 8.18 Access Control – IP Address Setup

Passwords

Use *Access Control→Passwords* to change a password. Select an account and enter the current password and the new password. Then click on **Save/Apply**.

Update Software

Tools – Update software

If your ISP releases new software for this router, follow these steps to perform an upgrade.

1. Obtain an updated software image file from your ISP.
2. Enter the path to the image file location or click on the "Browse" button to locate the image file.
3. Click the "Update Software" button once to upload the new image file.

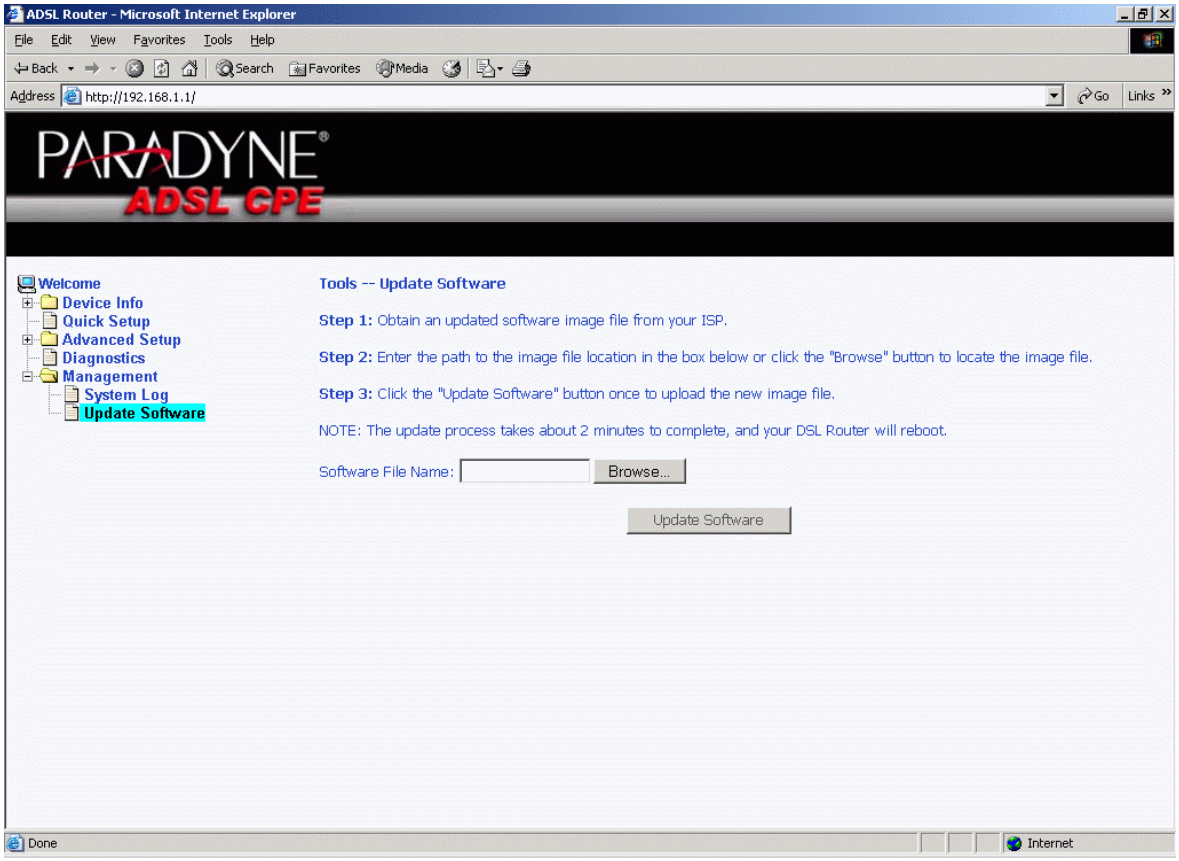

ADSL Router - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://192.168.1.1/
Go Links
PARADYNE
ADSL CPE
Welcome
Device Info
Quick Setup
Advanced Setup
Diagnostics
Management
System Log
Update Software
Tools -- Update Software
Step 1: Obtain an updated software image file from your ISP.
Step 2: Enter the path to the image file location in the box below or click the "Browse" button to locate the image file.
Step 3: Click the "Update Software" button once to upload the new image file.
NOTE: The update process takes about 2 minutes to complete, and your DSL Router will reboot.
Software File Name:
Browse...
Update Software
Done
Internet

Figure 8-2 Update Software

Note

The update process takes about 2 minutes to complete, and your CPE will reboot automatically.

Reboot Router

Select *Management→Reboot Router* to reboot the router using the web interface. The router will save the current configuration and reboot itself using the new configuration.

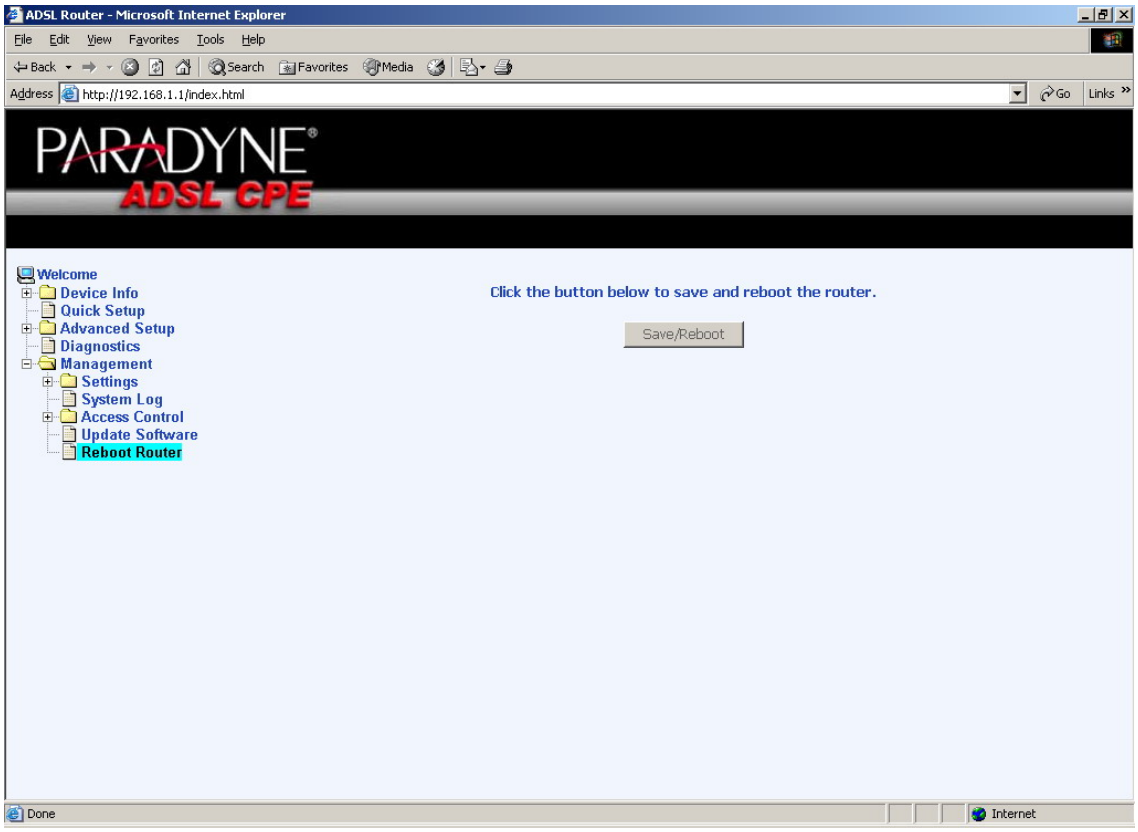


Figure 8.20 Reboot Router Page

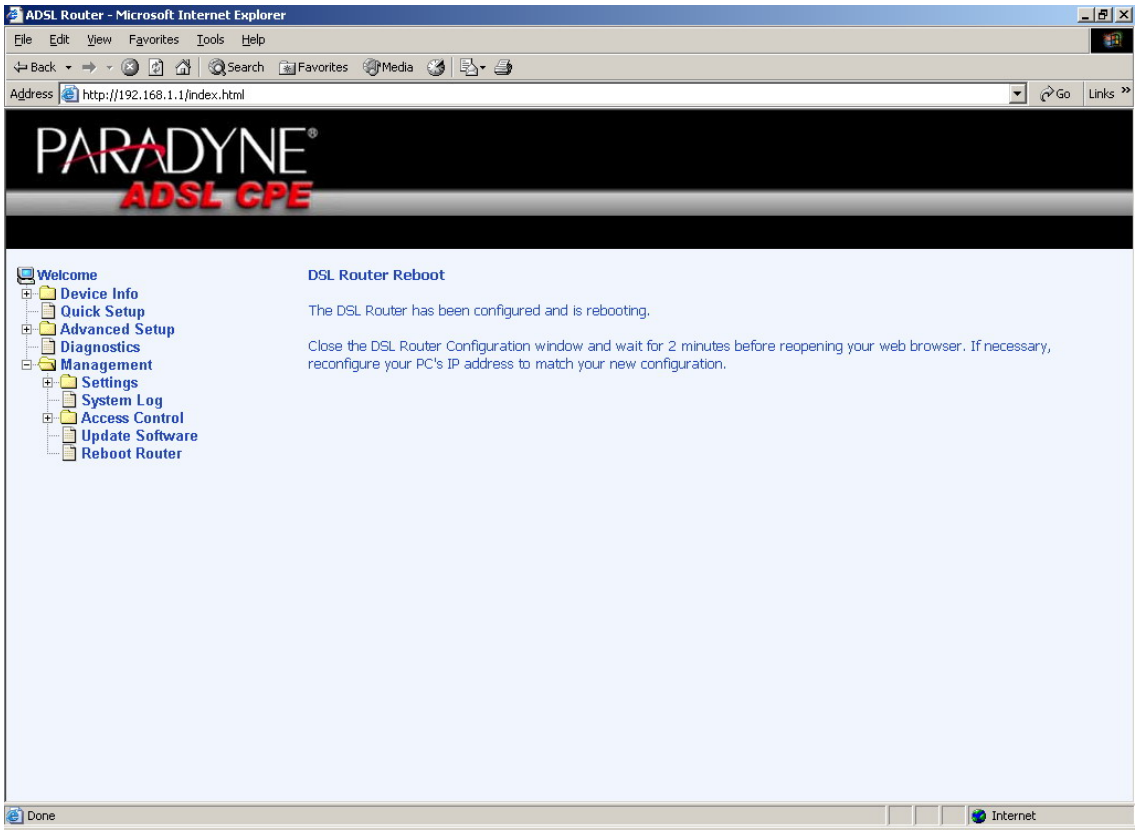


Figure 8.21 Rebooting Router Page

Note

The rebooting process takes about 2 minutes to complete.